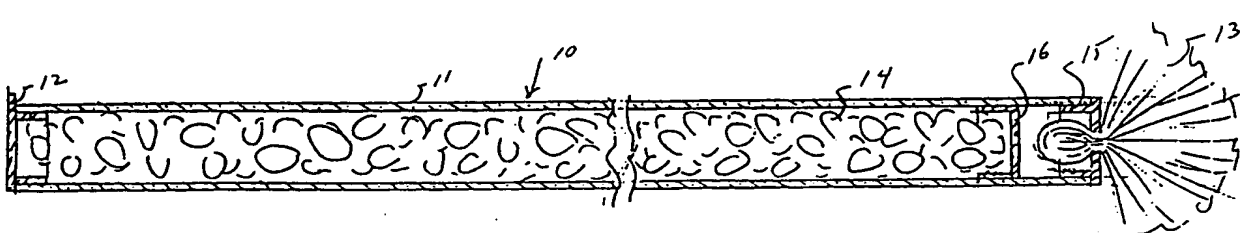


## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International Patent Classification <sup>5</sup> :</b>  <b>D04D 7/06</b>	<b>A1</b>	<b>(11) International Publication Number:</b> <b>WO 94/03669</b>  <b>(43) International Publication Date:</b> 17 February 1994 (17.02.94)
<b>(21) International Application Number:</b> PCT/US93/07411 <b>(22) International Filing Date:</b> 6 August 1993 (06.08.93)  <b>(30) Priority data:</b> 07/925,770                      7 August 1992 (07.08.92)                      US  <b>(60) Parent Application or Grant</b> (63) Related by Continuation US    07/925,770 (CIP) Filed on    7 August 1992 (07.08.92)  <b>(71)(72) Applicant and Inventor:</b> BANSCHICK, Kenneth, A. [US/US]; 484 Second Avenue, #7C, New York, NY 10016 (US).		<b>(74) Agent:</b> STEIN, Mitchell, A.; Stein & Hoffberg, 551 Fifth Avenue, New York, NY 10176 (US).  <b>(81) Designated States:</b> AU, BB, BR, CA, JP, KR, PL, US, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).  <b>Published</b> <i>With international search report.</i> <i>With amended claims and statement.</i>
<b>(54) Title:</b> CENTERPIECE ASSEMBLY SIMULATING FLORAL ARRANGEMENT		
		
<b>(57) Abstract</b>  A container including an elongated hollow member (11) having two ends, an axis, a maximum width and an aperture and being adapted to contain objects (14); a decorative element being axially attached to one of the ends of the elongated hollow member (11) and having a maximum width greater than the maximum width of the elongated hollow member (11); a pom-pom-like portion (13) included in the decorative element, this portion having segments that radiate in substantially three dimensions to substantially fill a central region; an attachment system for the pom-pom-like portion (13) for axially attaching the pom-pom-like portion (13) to the elongated hollow member (11); and an openable cover (15) adapted to obscure the aperture and to substantially contain the objects in the elongated hollow member (11). Also, a plurality of different containers and arrangements thereof in bouquets, fans, frontals, laterals, cascades, conicals, fountains and other geometries.		

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1           **CENTERPIECE ASSEMBLY SIMULATING FLORAL ARRANGEMENT**2                           **FIELD OF INVENTION**

3           This invention relates generally to decorative  
4 containers, display or presentation racks, stands or bases  
5 therefore, and a shipping system. The decorative containers  
6 are preferably used as table centerpieces, and more  
7 particularly as a part of or an entire centerpiece assembly  
8 which simulates a bouquet arrangement of cut flowers. The  
9 bouquet effect of the preferred embodiment is achieved by  
10 providing a plurality of floral-like elements whose stem is  
11 formed by a tubular wand or stem filled with pellets of edible  
12 candy and crowned with a flower-like pom-pom.

13                           **BACKGROUND OF THE INVENTION**

14           This application is a continuation-in-part  
15 application of U.S. Patent Application Ser. No. 07/925,770,  
16 filed August 7, 1992. The specification and claims of that  
17 application are expressly incorporated herein by reference.

18                           **STATUS OF PRIOR ART**

19           On festive occasions, such as an engagement, wedding,  
20 Bar Mitzvah, confirmation or birthday party, it is often the  
21 practice to adorn each table where the guests gather with a  
22 centerpiece in the form of a vase or bowl containing a bouquet  
23 of cut flowers. Such centerpieces are usually distributed to  
24 the guests as a memento of this occasion. The flowers are  
25 normally distributed to only a single guest because of inherent  
26 transport limitations, e.g., that cut flowers require a vase  
27 with water. Distribution is further limited in that there is  
28 but one centerpiece typically provided per table, and also  
29 because the beauty of flowers is enhanced by their arrangement  
30 into a bouquet. Thus, if a host desires that each guest  
31 receive a party favor, a separate gift must be provided.

32           When the festive occasion is a birthday party for a  
33 child and many other guests are children, the tables are  
34 usually laden with candy. At the conclusion of the party, each  
35 person in attendance is given a small bag of candy as a parting  
36 gift, especially since children typically attach little value

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1 to flowers. Thus, in this case, flowers are inappropriate as  
2 a party favor, although they might still be provided as a  
3 centerpiece.

4 To entertain young guests at a child's party or on  
5 other festive occasions, a host may engage for this purpose a  
6 professional magician who performs feats of magic, such as card  
7 tricks, illusions, and making a live rabbit disappear from  
8 sight. A particular tool of magicians is a wand, which the  
9 magician waves to invoke "mysterious" forces while executing  
10 the magical feat. Wands have been associated with the  
11 supernatural since time immemorial, and their shape evokes  
12 particular meaning. Thus fairies, good or bad, are often shown  
13 carrying wands, and even the magic flute, whose sounds are  
14 reputed to have magical powers, is a wand-like instrument.  
15 Therefore, the wand-like shape, when also serving as a hollow  
16 elongated member to form a container or receptacle, serves the  
17 dual purpose of holding items which may be removed, as well as  
18 evoking a certain aesthetic and magical mystique.

19 A preferred embodiment of the present invention thus  
20 takes into account not only the decorative function of a floral  
21 centerpiece for festive occasion, but also the role of candy  
22 and wands on such occasions.

23 U.S. Patent No. 1,491,926 to Rosenwald discloses a  
24 support for a bunch of cut a flowers in the form of a vase  
25 having installed therein, one above the other, two grids  
26 adapted to receive the stems of the cut flowers so as to hold  
27 these flowers at different angles.

28 The flower arranging vase shown in the U.S. Patent  
29 No. 4,461,118 to Ferting serves a similar purpose. A vase is  
30 provided with a perforated wall, the perforations being  
31 provided so that the stems of the flowers inserted in these  
32 apertures extend outwardly from the side of the vase, while the  
33 stems of the flowers received in the mouth of the vase stand  
34 more or less upright.

35 U.S. Patent No. 877,145 to Waddell discloses a cut  
36 flower holder having a weighted base above which are supported  
37 at different levels two apertured plates to receive the stems  
38 of the cut flowers.

39 U.S. Patent No. 1,468,743 to Porter shows a candy

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1 package in the form of a plant growing in a flower pot. The  
2 bulk of the candies are contained in the pot, the others being  
3 supported above the pot to represent blossoms.

4 U.S. Patent No. 4,957,784 to Ripamonti discloses a  
5 decorative bow and a method of manufacture therefore.

6 The vase-like display container for candy shown in  
7 U.S. Patent No. 3,431,041 to Fontlladosa has an apertured,  
8 dome-shaped cover in whose holes are inserted the stems of  
9 lollipops, thereby creating a bouquet of lollipops.

10 SUMMARY OF INVENTION

11 It is an object of the present invention to provide  
12 a container which includes an elongated hollow member having  
13 two ends, an axis, a maximum width and an aperture and being  
14 adapted to contain objects; a decorative element being axially  
15 attached to one of the ends of the elongated hollow member and  
16 having a maximum width greater than the maximum width of the  
17 elongated hollow member; a pom-pom-like portion included in the  
18 decorative element, this portion having segments that radiate  
19 in substantially three dimensions to substantially fill a  
20 central region; an attachment system for the pom-pom-like  
21 portion for axially attaching the pom-pom-like portion to the  
22 elongated hollow member; and an openable cover adapted to  
23 obscure the aperture and to substantially contain the objects  
24 in the elongated hollow member.

25 It is a further object of the present invention to  
26 provide a plurality of different containers and arrangements  
27 thereof in bouquets, fans, frontals, laterals, cascades,  
28 conicals, fountains and other geometries.

29 BRIEF DESCRIPTION OF DRAWINGS

30 For a better understanding of the invention as well  
31 as other objects and further features thereof, reference is  
32 made to the following detailed description to be read in  
33 conjunction with the accompanying drawings, wherein:

34 Fig. 1 is a longitudinal section through a container in  
35 accordance with a preferred embodiment of the invention;

36 Fig. 2 is an exploded view of the container with the pom-  
37 pom like portion in accordance with preferred embodiment of

1 Fig. 1;

2 Fig. 3 is a pictorial side view showing candy pellets as  
3 the contained objects being dispersed from the container  
4 through the aperture, in accordance with the preferred  
5 embodiment of Fig. 1;

6 Fig. 4 is a perspective view of one embodiment of a  
7 centerpiece assembly according to the invention, in which a  
8 group of containers, in this instance comprising a plurality  
9 of containers comprising floral-like elements which are  
10 together supported in a bouquet arrangement on a rack-like  
11 support structure;

12 Fig. 5 is a top-view perspective of the rack shown in Fig.  
13 4;

14 Fig. 6 is a sectional side view of another embodiment of  
15 a rack with containers configured in a manner to function as  
16 a centerpiece assembly, in which the rack is adapted to  
17 support two intermeshed bouquet arrangements of floral-like  
18 elements;

19 Fig. 7 is a perspective top view of the rack shown in Fig.  
20 6;

21 Fig. 8 is a perspective top view of yet another embodiment  
22 of a functioning centerpiece assembly;

23 Fig. 9 is a perspective top view of the rack shown in Fig.  
24 8;

25 Fig. 10 is a sectional side view of the rack shown in Fig.  
26 9 with containers containing objects situated therein;

27 Fig. 11 is a top view of the rack shown in Fig. 9;

28 Fig. 12 is a side perspective view of a rack and two  
29 alternatively embodied, insertable container supports;

30 Fig. 13 is a perspective side view of yet another rack  
31 adapted to be able to accept at least one insertable container  
32 support or other decorative objects;

33 Fig. 14 is a side perspective view of an apertured  
34 cylinder rack;

35 Fig. 15 is a side perspective view of a rack having an  
36 eccentric, cylindrical support for a plurality of tier plates;

37 Fig. 16 is a perspective side view of a bouquet  
38 arrangement of a floral like elements in a rack without a base;

39 Fig. 17 is a side view of an apertured dome or hemisphere

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1 rack;

2 Fig. 18 is a side view of an additional decorative object  
3 attached to a container;

4 Fig. 19 is a side perspective view of a hinged container;

5 Fig. 20 is a side perspective view of a container having  
6 tethered covers and a suspension system;

7 Fig. 21 is a side perspective view of an embodiment of an  
8 electronic module;

9 Fig. 22 is a side perspective view of a rack containing  
10 an electronic module;

11 Fig. 23 is a cutaway side view of an electronic module  
12 illuminating fiber optics;

13 Fig. 24 is a cutaway side view of an electro-mechanical  
14 module;

15 Fig. 25 is a side view of an electronic module including  
16 a flash lamp and fiber optics;

17 Fig. 26 is a cross-sectional view taken along section A-A  
18 shown in Fig. 27 and including a light pipe;

19 Fig. 27 is a side perspective view of an elongated hollow  
20 member including a light pipe;

21 Fig. 28 is a side perspective view of a wedding popper;

22 Fig. 29 is a side perspective view of a container  
23 including a pneumatic module;

24 Fig. 30 is a side perspective view of a vacuum-formed  
25 rack; and

26 Fig. 31 is a side perspective view of a bottle in  
27 accordance with the invention.

## 28 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

29 The decorative end closure preferably comprises a  
30 pom-pom, and more preferably a pom-pom having floral  
31 characteristics. The floral pom-pom provides an aesthetic  
32 similarity to a cut flower when attached to a hollow elongated  
33 member, and when a plurality of decorative containers arranged  
34 together provides an aesthetic substitute for a floral bouquet  
35 or centerpiece. Pom-pom decorative elements may also invoke  
36 other aesthetic significance.

37 In an apparatus with a floral-like decorative end  
38 closure, the hollow elongated element functions as the stem

1 element. In other arrangements, the hollow elongated element  
2 may be considered a wand. Because of the container nature of  
3 the hollow elongated element, various contents may be inserted  
4 in this portion. In a preferred embodiment, the hollow  
5 elongated element is a transparent tube which is filled with  
6 edible foodstuffs. In a more preferred embodiment, the hollow  
7 elongated element is a container filled with colored candies.

8         The present invention provides a centerpiece assembly  
9 having a base or stand, providing an arrangement of individual  
10 elements, which simulate an array of cut flowers, each element  
11 including a supply of edible candy or other goods contained in  
12 a hollow elongated member, the elongated hollow member  
13 simulating the stem, which may be formed by a tubular wand of  
14 transparent material filled with candy pellets whose color  
15 imparts color to the stem.

16         The preferred arrangement of the decorative  
17 containers according to the present invention comprises a  
18 plurality of like containers supported at a single level by a  
19 rack, each container being outwardly tilted from a central axis  
20 to form a conical formation with the apex down. There may be  
21 a plurality of levels of so-supported decorative containers  
22 within a single rack.

23         The present invention also provides a decorative  
24 container comprising a hollow elongated member having an  
25 aperture and an enclosed space for holding contents and a  
26 decorative end closure, said decorative end closure preferably  
27 forming a pom-pom structure and more preferably having floral  
28 characteristics. The decorative container may advantageously  
29 also comprise an additional decorative element or a novelty  
30 device. Exemplary novelty devices include electronic modules,  
31 electro-optic modules, electromechanical modules,  
32 electroacoustic modules, acoustic modules, radio frequency or  
33 optical signal transceiving (transmitting and/or receiving)  
34 modules, piezoelectric modules, volatile composition dispersing  
35 modules, cosmetics, pyrotechnic modules, pneumatic or hydraulic  
36 modules. These modules may be included within the decorative  
37 container or external to it. In a preferred embodiment, a  
38 single module may be incorporated in the base or stand and  
39 provide a novelty function or suite of functionality for a



1 plurality of decorative containers.

2           The decorative container may also be associated with  
3 a module which provides a function other than a novelty  
4 function. In this instance, the function may be related to  
5 function as a centerpiece, or to another function.

6           It is also an object of the present invention to  
7 provide a stand or base providing an arrangement or array of  
8 hollow elongated elements. The stand or base provides  
9 stability and a three dimensional presentation of the elements.  
10 The stand or base may also be used to maintain or assist in  
11 maintaining the integrity and arrangement of the elements  
12 during transport.

13           The stand or base may also include various functional  
14 modules, as described above. A module in the base unit may  
15 advantageously interact with a module in the decorative  
16 container to provide a distributed functionality. In this  
17 instance, the base unit may also advantageously interact with  
18 other proximate base units. This interaction may  
19 advantageously form the basis of a party game, wherein the  
20 individual player element may be the individual or the table,  
21 competing against other individuals or tables.

22           A preferred embodiment of the present invention  
23 provides that each floral element is a self-contained package  
24 for a supply of edible candy, and these elements may therefore  
25 be distributed as parting gifts to the guests attending a party  
26 in which the centerpiece assembly is placed on a table about  
27 which the guests gather.

28           The present invention also provides a centerpiece  
29 assembly in which an array of floral elements is supported by  
30 a rack so that these elements are clustered in a conical  
31 formation to assume the configuration of a bouquet.

32           The centerpiece assembly preferably includes an array  
33 of floral-like elements, supported and arranged on a rack to  
34 simulate a bouquet of cut flowers. Each element in the array  
35 has a stem formed by a transparent tubular wand filled with  
36 pellets of candy whose color imparts color to the stem. The  
37 lower end of the stem is provided with a removable stopper, the  
38 upper end having a decorative flower-like pom-pom attached  
39 thereto.

1           A preferable rack according to the present invention  
2   is preferably fabricated of transparent material or a material  
3   which matches or contrasts the supported elements, and is  
4   composed of a base plate having a center post anchored thereon  
5   on which are supported at least two tier plates, one above the  
6   other, each having a ring of equispaced holes therein coaxial  
7   with the center post. In other embodiments, a post may be  
8   eccentric or there may be a plurality of posts at each level;  
9   the supports may also be tubular or sheet-like. The upper tier  
10  ring has a diameter greater than that of the lower tier ring,  
11  whereby each hole in the upper ring is spaced a greater  
12  distance from the post than the corresponding hole in the lower  
13  ring.

14           The stem of each floral-like element is inserted into  
15  a respective hole in an upper ring and the corresponding hole in  
16  a lower ring, with its lower end resting on the base, whereby  
17  the elements of array are outwardly inclined and converge at  
18  the base to simulate a bouquet of cut flowers. Of course, a  
19  single tier ring could be used to support the bouquet, with the  
20  ends of the stems resting on a table, the outward force of the  
21  inclined elements balancing the forces of the other elements  
22  to maintain a stable configuration. Other configurations are  
23  also possible.

                  The present invention also provides  
24  a decorative container which is designed for use in the direct  
25  or outer packaging for cosmetics. In such an application, the  
26  decorative end closure may advantageously be employed as an  
27  applicator, either by virtue of the decorative element itself  
28  serving as a brush or the like, or the decorative end closure  
29  being associated with the applicator or the like. The  
30  decorative container may also provide a feedback device, e.g.  
31  a mirror, fragrance detector, skin hydration tester, color  
32  balance meter, reflectivity meter, etc., to assist the user in  
33  applying or using the cosmetic.

34           The preferred pom-pom according to the present  
35  invention comprises a roughly spherical or spherical section  
36  having protruding edges or points rather than surfaces, said  
37  edges or points having a visual projection to a central origin,  
38  and which face substantially outward. Because the distal edges  
39  or points may be traced toward the center, they provide

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1 dimensionality and volume, rather than an external surface or  
2 series of surfaces which obscure visibility of a low density  
3 central region.

4           A pom-poms according to the present invention  
5 includes elements that are sufficiently delicate in structure  
6 so as to require their protection during shipping. In these  
7 cases the pom-poms can be assembled onto a shipping tray,  
8 preferably made of corrugated cardboard, plastic or other  
9 structurally protective material. The tray can be  
10 prefabricated such that holes, spaces or receptacles areas are  
11 spaced far enough apart to keep the pom-poms from injuring each  
12 other during rough shipment. In one example, a corrugated  
13 tray, holding twelve pom poms, is used to assemble the pom-  
14 poms. The pom-poms are held in place by clips, pins, or  
15 friction insertion of the bottom of the pom-pom into the tray  
16 receptacles areas. These trays can then be placed in shipping  
17 containers side by side, whereupon, the decorative containers  
18 such as tubes can be placed side by side to create a layer or  
19 layers of tubes matching the pom poms in the trays.

20           Some shipping configurations call for three, four or  
21 more of these trays to be placed, side by side, or one on top  
22 of another or other configuration to optimize shipping and  
23 transport costs.

24           In another configuration, a tray, matching tubes, and  
25 a display rack are fitted to create a ready-to-assemble  
26 arrangement.

27           Another preferred pom-pom according to the present  
28 invention is a spherical or hemispherical shaped decorative  
29 object formed from a plurality of elements, each preferably  
30 having a similar shape or form, or having two different shapes  
31 or forms, each having a distal edge. point or projection, each  
32 element projecting outward toward a perimeter to form an  
33 indefinite edge of the object as a whole. The elements  
34 comprising the object preferably has a length which is greater  
35 than its girth.

36           The decorative end closure may also comprise a  
37 proportionately sized Koosh ball (TM), which is a plurality of  
38 rubber strands emanating from a central core.

39           A further type of preferred pom-pom comprises an open

1 frame architecture consisting of a plurality of relatively  
2 dense filamentous structures separated in space by air, each  
3 of said filaments projecting from a central portion in a  
4 generally outward direction, to form a pom-pom having a  
5 substantially spherical shape.

6         The most preferable floral pom-pom decorative end  
7 closure of the present invention is preferably fabricated from  
8 a synthetic plastic film material such as polyester or  
9 polypropylene, and may have a vapor-deposited film of aluminum,  
10 amber colored or other metallic coatings imparting color and  
11 reflectivity to the plastic film. The material used for  
12 forming the pom-pom may also be paper, which may be, for  
13 example tissue paper, fringed or, rolled. Alternative  
14 materials also include tulle or other fabric, or laminates of  
15 metal foil and plastic film. The pom-pom may also include  
16 fiber optic elements, electronic elements (e.g. LEDs or  
17 incandescent bulbs), latex or rubber filaments (e.g. Koosh  
18 ball), or other materials.

19         For particular applications, the pom-pom may be  
20 formed from soap leaves or shavings.

21         In order to simulate various natural or distinctive  
22 objects such as flowers, the pom-pom may have a color scheme  
23 and spatial arrangement adapted to achieve a particular  
24 aesthetic value. A preferred type of pom-pom has a  
25 substantially spherical or a spherical section shape, having  
26 a tuft of ribbon material axially emerging from the center.

27         The pom-pom itself may preferably be composed of a  
28 plurality of filaments protruding from a common central source.  
29 The filaments may be tufts, cords, ribbons, creased layers of  
30 material, leaves, enfoldments, rods or wires. An essential  
31 characteristic of the pom-pom is that it has a three  
32 dimensional arrangement of flexible elements projecting from  
33 a central source, creating an aesthetic dimensionality.

34         Another type of spheric decorative structure  
35 comprises an paper accordion structure, in which the paper  
36 folds form open spaces which can be traced centrally to an axis  
37 of symmetry. Such structures may be affixed to elongated  
38 members. Accordion paper structures may be used to form or  
39 decorate the centerpiece rack or stand. These paper structures

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1 may be collapsed in order to facilitate shipping. Variations  
2 of the shape of the accordion may be obtained by adapting the  
3 die cutting process to provide various features, such as floral  
4 protrusions.

5           A kit for assembling a decorative display may be  
6 advantageously obtained by together providing a stand, adapted  
7 after assembly to hold a plurality of members; a plurality of  
8 hollow members preferably having a diameter of between  
9 approximately 0.75 to 2 inches and preferably having a length  
10 of approximately 3 to 18 inches preferably formed of butyrate  
11 plastic tubing, a removable closure for each hollow elongated  
12 member, and a pom-pom with floral characteristics and  
13 subassemblies thereof with a means for attachment to the hollow  
14 elongated member. Alternatively, the tube may be blind at one  
15 end and the pom-pom attached to a removeable closure.

16           A kit for assembling the decorative containers  
17 according to the present invention may advantageously be  
18 obtained by together providing a hollow member, preferably  
19 having a diameter of between approximately 0.75 to 2 inches and  
20 preferably having a length of approximately 3 to 18 inches  
21 preferably formed of butyrate plastic tubing, a removable  
22 closure and a pom-pom with floral characteristics and  
23 subassemblies thereof with a means for attachment to the hollow  
24 elongated member. Alternatively, the tube may be blind at one  
25 end and the pom-pom attached to a removeable closure. Contents  
26 for the tube may optionally be provided.

#### 27 END CLOSURES FOR DECORATIVE CONTAINERS

28           The hollow elongated member of the present invention  
29 may be sealed in a number of ways. The end of the hollow  
30 elongated member may be inherently blind, or closed by means  
31 of a closure. The closure may be an end cap or plug which is  
32 inserted into or affixed around an aperture of the hollow  
33 elongated member. The distal end may also be closed by means  
34 of a cap which fits outside the hollow elongated member. The  
35 distal end closure may also comprise a pair of concentric wall  
36 elements and a perpendicular wall, which fits both inside and  
37 outside the wall of the hollow elongated member. The end cap  
38 or plug may be of a friction fit type, sealed with adhesive,

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1 ultrasonically sealed, heat sealed, or mechanically sealed.  
2 Further, the end cap or plug may be a screw type or bayonet  
3 type closure. The distal closure may be either the primary  
4 access port for the contents of the container, or may be  
5 secondary.

6 The distal end of the hollow elongated member may  
7 also be heat sealed with an flush end foil membrane, which in  
8 turn may be open or covered with a secondary covering as  
9 described above. The foil membrane is removed by peeling the  
10 foil away from the aperture or puncturing the membrane.

11 The decorative end closure may generally employ  
12 similar sealing methods to those described for the distal  
13 closure. However, the decorative end closure is relatively  
14 fragile, and therefore if it is the primary means for accessing  
15 the contents of the container, then the sealing method should  
16 be such that a relatively low amount of force is necessary in  
17 order to remove the decorative end closure. Thus, the  
18 decorative end closure should be a friction fit, screw or  
19 bayonet type closure, if it is the primary access port.

#### 20 CENTERPIECE ASSEMBLY OF FLORAL-LIKE ELEMENTS

21 In the various embodiments of a centerpiece assembly  
22 in accordance with the present invention, as shown in Figs. 4,  
23 6, 8, and 10, an arrangement of containers, each being a  
24 floral-like element, each generally designated by reference  
25 numeral 10, is supported on a transparent rack to create the  
26 effect of a bouquet of flowers whose configuration or  
27 arrangement depends on the structure of the supporting rack.

28 Each floral-like element 10, as shown in Figs. 1, 2  
29 and 3, includes a stem formed by an elongated hollow member,  
30 being a tubular member 11 which is preferably formed of  
31 transparent, rigid, synthetic plastic material, such as an  
32 acrylic polymer, polypropylene or PVC, and may resemble a wand.  
33 Received in the lower end of tubular member 11 is an openable  
34 cover, the removable stopper 12.

35 Attached to the upper end of floral-like element 10  
36 and enclosing this end is a pom-pom-like structure, pom-pom 13  
37 which simulates a highly decorative flower. Pom-pom 13, which  
38 crowns the stem of floral-like element 10, is preferably

1 fabricated of synthetic, plastic film material, such as  
2 polyester, polypropylene or polystyrene optionally having  
3 vapor-deposited thereon aluminum, amber-colored or other  
4 metallic coatings imparting color to the plastic film. The  
5 material used for forming the pom-pom may also be paper, tulle  
6 or other fabric, or laminates of metal foil and plastic film.

7 In order to simulate a flower, the pom-pom 13 may be  
8 composed of a round puff having a single distinctive color,  
9 such as violet, yellow or rose, from which puff emerges at its  
10 center a cluster of multi-colored ribbons.

11 Filling a hollow space in the elongated tubular  
12 member 11 are objects contained therein, in this instance being  
13 a pile or accumulation of colored pellets 14 of edible candy  
14 whose sizes such as to be accommodated within tubular member  
15 11, the diameter of which in this embodiment is preferably no  
16 greater than about one inch. In other embodiments, larger  
17 wands may be advantageously be used. These candy pellets 14  
18 may be constituted by loose, colored jelly beans, Hershey  
19 chocolate kisses wrapped in metal foil, presenting a silver,  
20 gold or other metallic color, or M&M chocolate pieces having  
21 outer coatings in various colors. Pom-pom 13 is anchored so  
22 that its root enters a main cap 15 which encloses the upper end  
23 of the wand. An inner cap 16 is also provided to shield the  
24 root of the pom-pom 13 from the candy pellets 14. Together,  
25 the main cap 15 and the inner cap 16 may comprise an openable  
26 cover or be fixed.

27 Thus when tubular member 11 is filled with a pile of  
28 jelly beans, the pile may be created by successive sections of  
29 beans in different colors, so that the lowermost section is  
30 formed by green colored beans, the section thereabove by  
31 yellow-colored beans, followed by a section of pink colored  
32 beans, and so on. In this way, the pile presents a series of  
33 contrasting colors. However, when the pile is created by  
34 kisses in a silver-like foil wrappers, then the entire pile is  
35 silvery.

36 It should be apparent that the contents of the  
37 tubular member 11 is not limited to colored candy pellets 14  
38 or even confections, and may also include other foodstuffs,  
39 gifts, merchandise, samples, novelties, as may be inserted into

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1 the tubular member 11. While in a preferred embodiment, the  
2 tubular member 11 is transparent, in other embodiments, the  
3 stem may be colored, and formed of a transparent, translucent  
4 or opaque material. It is further noted that the tubular  
5 member 11 may be a composite structure, having varying optical  
6 properties over its surface. The tubular member 11 may also  
7 contain secondary containers, e.g. cosmetics or liquids, which  
8 may be removed through the closure, which in the present  
9 example is the removable stopper 12.

10 In an embodiment in which the tubular member 11 is  
11 transparent, the resultant stem formed and filled with the  
12 candy pellets 14 has a color or colors imparted thereto by the  
13 candy pellets 14. In practice, the stem may be color-  
14 coordinated with the flower simulating pom-pom 13. One can  
15 also provide an array of floral-like elements 10, the stems of  
16 which are in the respective colors of a rainbow and thereby  
17 create a highly dramatic and multicolored bouquet.

18 In order to fill the tubular member 11, removable  
19 stopper 12 is removed therefrom, and when the removable stopper  
20 12 is returned to the tubular member 11, the candy pellets 14  
21 are entrapped in the tubular member 11 of the floral-like  
22 element 10 which becomes a candy package.

### 23 FIRST EMBODIMENT OF THE CENTERPIECE ASSEMBLY

24 As shown in Figs. 4 and 5, in one preferred  
25 embodiment of the centerpiece assembly, the assembly is  
26 constituted by an array of floral-like elements 10, supported  
27 in a bouquet arrangement by a rack, generally designated by  
28 reference numeral 17.

29 Rack 17, which is fabricated of transparent and  
30 synthetic plastic material of high strength, such as an acrylic  
31 polymer or PVC, includes a circular base plate 18. Anchored  
32 on base plate 18 is a vertical center post 19 supported at  
33 equispaced or quasi-equispaced levels above the base plate  
34 circular tier plates 20 and 21.

35 The first tier plate 20, whose diameter is greater  
36 than that of base plate 18, is provided with a circular ring  
37 R20 of equispaced holes H20, the ring R20 being coaxial with  
38 center post 19 and concentric with the periphery of tier plate



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1 20. The second tier plate 21, whose diameter is greater than  
2 that of tier plate 20, is provided with a circular ring R21 of  
3 equispaced holes H21, equal in number to the number of the  
4 holes in ring R19. Ring R21, whose diameter is greater than  
5 that of ring R20, is coaxial with center post 19 and concentric  
6 with the periphery of tier plate 21. Hence the distance from  
7 each hole H21 in ring R21 from center post 19, is greater than  
8 the distance of the corresponding hole H20 in ring R20 from  
9 center post 19. In order for a stem to go through hole H21  
10 into a corresponding hole H20, it must assume an angle relative  
11 to the vertical plane.

12 In other embodiments, the symmetry is not necessary,  
13 and the arrangement may be eccentric or staggered.

14 For arrangement into a bouquet, floral-like elements  
15 10, equal in number to the number of holes in each ring, have  
16 their stems inserted in holes H21 and H20 in rings R21 and R20  
17 of the tier plates so that the ends of the stems rest on base  
18 plate 18. Because of the difference in the diameters of these  
19 hole rings, the ends of the stems are clustered on base plate  
20 18, the stems being outwardly inclined relative to the base  
21 plate to create a conical array of floral-like elements. Of  
22 course, an excess number of holes may be provided in each ring  
23 so that the number of floral-like elements may be varied  
24 according to the number of guests.

## 25 SECOND EMBODIMENT OF THE CENTERPIECE

26 In the first embodiment of the centerpiece assembly  
27 shown in Figs. 4 and 5, the array of outwardly inclined,  
28 flower-like elements 10 are so held by rack 17 as to create a  
29 single conical bouquet formation.

30 In the second embodiment shown in Figs. 6 and 7, the  
31 rack for the centerpiece assembly, generally designated by  
32 numeral 22, is constricted so as to create two a two-level  
33 bouquet in which a higher cluster of flower-like elements 10  
34 forming an upper bouquet is partially nested within a lower  
35 cluster of elements to create a more complex floral  
36 arrangement.

37 Rack 22 comprises a circular base 23 on which a  
38 center post 24 is anchored to support at equispaced or quasi-

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1    equispaced positions above circular base 23 tier plates 25, 26,  
2    27 and 28, each having a ring of holes therein, 25H, 26H, 27H,  
3    and 28H respectively. The diameter of second tier plate 26 is  
4    greater than that of first tier plate 25. The arrangements of  
5    holes 25H and 26H is such that, as shown in Fig. 6, the ends  
6    of floral-like elements 10 which go through these holes rest  
7    on circular base 23 to form a conical cluster.

8                The diameter of the third tier plate 27 is smaller  
9    than tha of the second tier plate 26, the arrangements of holes  
10   27H and 28H being such that the ends of floral-like element 10  
11   which go through these holes, as shown in Fig. 6, rest on tier  
12   plate 26 about center post 24 and within the circular ring of  
13   holes 26H on this tier plate. In this way, the upper floral  
14   element bouquet cluster of elements, which partially nest  
15   within the lower flowal element bouquet cluster to rest on the  
16   second tier plate 26 which acts as a base with respect to the  
17   upper floral element cluster bouquet.

### 18    THIRD EMBODIMENT OF CENTERPIECE

19                In the first two embodiments of centerpiece  
20   assemblies in which floral-like elements are supported in a  
21   bouquet arrangement formation on a rack, the location of the  
22   holes in the tier plates is such that each floral-like element  
23   10 which goes through an upper tier hole is outwardly inclined  
24   relative to the center post of the rack and lies in a vertical  
25   plane that passes through the vertical axis of the center post.

26                In a third embodiment of the centerpiece assembly,  
27   as shown in Figs. 8, 9, 10 and 11, the rack, generally  
28   designated by numeral 29, is composed of a circular base 30 on  
29   which are supported a first tier plate 32 whose diameter is  
30   smaller than that of the circular base 30 and a second tier  
31   plate 33 whose diameter is somewhat greater than that of  
32   circular base 30.

33                The first tier plate 32 is provided with a ring of  
34   five equispaced holes 32H, while the second tier plate 33 is  
35   also provided with an equal number of, e.g. five, ring holes  
36   33H. Both rings of holes are spaced the same radial distance  
37   from the center post 31. However, the holes 32H in first tier  
38   plate 32 are angularly displaced with respect to the

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1 corresponding holes 33H in second tier plate 33. In other  
2 words, an axis defined by a hole 32H and 33H is not parallel  
3 to a central axis of the rack 29, the central axis being normal  
4 to the surfaces of the tier plates 32, 33, which in turn are  
5 substantially parallel to the support for the rack.

6 Hence, as shown in Figs. 8 and 10, when floral-like  
7 elements 10 are inserted through a corresponding set of ring  
8 holes 33H and 32H to rest on circular base 30, floral-like  
9 elements 10 are then angled with respect to center post 31.

10 Center post 31, as shown in Fig. 10, is provided at  
11 its upper end with a cylindrical well 31W into which is  
12 inserted the lower end of a floral-like element 10 so that this  
13 element which is at the center of the bouquet arrangement is  
14 upright. Alternatively, a different decorative structure may  
15 be placed at the apex of the rack 29.

#### 16 FOURTH EMBODIMENT OF THE CENTERPIECE

17 In a fourth embodiment according to the present  
18 invention, a rack for presenting wand elements is provided in  
19 which the direction and/or location of the individual wands may  
20 be varied according to the tastes of the decorator, as shown  
21 in Fig. 12. The rack comprises a base unit which is placed on  
22 a flat surface 40 for support. The base 41, or an element  
23 associated with the base has a plurality of cavities 42 into  
24 which a cup 43 having a lower protrusion 44 adapted to mate the  
25 cavity may be placed. This base 41 element has a large number  
26 of cavities 42 so that various optional placements of the cups  
27 43 are possible. Therefore, the designer has control over the  
28 location of each floral-like element 10 on the base 41 element.  
29 If the lower protrusion 44a from the cup 43a is not axially  
30 aligned with the cup structure, then the designer also has the  
31 ability to select an angle of the cup 43a, thus changing the  
32 direction of the floral-like element 10.

33 In another embodiment, as shown in Fig. 13, the base  
34 51 is formed of styrofoam or other low density synthetic foam  
35 polymer, or wood, and a cup 52 which has an axially aligned  
36 screw 53 or dowel, which may be firmly implanted in the  
37 styrofoam at any desired angle or location, preferably on an  
38 upper surface 54 thereof.

1           A further embodiment of the present invention  
2 comprises a styrofoam base 51 which supports a plurality of  
3 elongated members 55 which may be plastic tubing or rod, e.g.  
4 cylinders, each bearing a symmetric pom-pom 13 having floral  
5 features. The lower end 56 of the elongated member may be  
6 forcefully inserted in the styrofoam base 51 in order to form  
7 an arrangement.

8           A rack for the present centerpiece for supporting the  
9 decorative containers may have a central post or be of another  
10 design. For example, the rack may consist of an apertured  
11 cylinder, as depicted in Fig. 14, a clamshell design, as  
12 depicted in Fig. 15, a baseless rack which positions the  
13 decorative containers which are supported directly by a table  
14 or the like, as shown in Fig. 16, an apertured hemisphere, as  
15 depicted in Fig. 17.

16           It will be appreciated that in centerpiece assemblies  
17 in accordance with the present invention, while the floral-like  
18 elements 10 may be identical or different from each other, the  
19 bouquet formation arrangement varying depending on the rack  
20 configuration and the selection of elements. Because the rack  
21 is composed of components, all of which may be clear and  
22 transparent, the decorative impact of the bouquet may be made  
23 to depend on the colors of the candies contained in the wand-  
24 like stem of the tubular element 11 of the floral-like elements  
25 10, as well as the formation and the colors of the pom-pom 13  
26 which crowns the stems and on the orientation of the floral-  
27 like elements 10 produced by the selected supporting rack.

28           In a preferred embodiment of a rack or stand  
29 according to the present invention, a central upper tier plate  
30 28 as shown in Fig. 6 is provided in order to accomodate theme  
31 object such as a figurine or stuffed animal, a seasonal symbol,  
32 a religious symbol, a sports symbol, a sign or indicator, a  
33 banner, or the like. Of course, the stand or rack should also  
34 include means for retaining the theme object, if necessary.  
35 A banner may be placed around a portion of a centerpiece, which  
36 banner may display a message, greeting or other text or symbol.  
37 Alternatively, a theme object 60 may be affixed by suitable  
38 means, such as ribbon 61 to one or more of the tubular element  
39 11 of the decorative containers as shown in Fig. 18, which may

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1 be inserted or contained in the rack, in order to enhance the  
2 party favor aspect of the functionality.

3           Instead of providing a centerpiece bouquet  
4 arrangement of real flowers for festive occasions as well as  
5 favours to be distributed to guests at the conclusion of the  
6 occasion, one may gain a significant reduction in costs by  
7 using a centerpiece assembly in accordance with the invention,  
8 which by its very nature functions not only as a centerpiece  
9 bouquet arrangement, but also as a supply of party favors to  
10 be distributed.

11           The centerpiece assembly of the present invention may  
12 also provide a candleholder, e.g. a candle replacing the  
13 central floral-like element 10 as shown in Fig. 10, allowing  
14 the centerpiece to support a flaming candle in a safe and  
15 controlled manner.

16           It is not necessary that the tubular element 11 of  
17 the floral-like elements 10 have a removable stopper 12 at its  
18 bottom end, for in practice this end may be closed, or  
19 permanently covered, in which case the pom-pom 13 at the upper  
20 end of the tubular element 11 may be is anchored on a screw-on  
21 cap so that the wand can be loaded with candy through the upper  
22 end of the wand, the cap being unscrewed when the candy is to  
23 be discharged from the wand. Other closure methods are also  
24 possible, including bayonet, snap-on, friction fit, adhesive,  
25 partial fusion of adjacent plastic elements by thermal or  
26 ultrasonic bonding, or the like.

27           The closure need not be fully separable from the  
28 tubular element 11, and in fact, when the floral-like element  
29 10 is to be distributed to young children, it is preferable  
30 that the closure be attached to the wand to avoid accidental  
31 ingestion. In this case, as shown in Fig. 20, the closure may  
32 be tethered to the wand by a tether 61, which attaches to or  
33 encircles the tubular element 11 on one side and the upper  
34 closure structure 62 comprising the pom-pom 13, main cap 15 and  
35 the inner cap 16. The removable stopper 12 at the base may  
36 also be tethered to the tubular element 11 by a stopper tether  
37 63.

38           Alternately, the closure may comprise a hinged  
39 structure which is tiltable with respect to a longitudinal axis

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1 of the wand, as shown in Fig. 19. When the closure 64 is  
2 tilted on hinge 65, full or partial access may be gained to the  
3 compartment of the tubular element 11 through aperture 66. A  
4 similar structure known to those skilled in the art is employed  
5 in the PEZ (TM) dispenser, which actively dispenses candy.  
6 When employed as a dispenser, the wand is also supplied with  
7 a feed mechanism to juxtapose the contents proximate to the  
8 selectively formed aperture, and preferably a means for  
9 refilling the dispenser.

#### 10 DIMENSIONS OF CONTAINER AND RACK

11           The present decorative container may be combined with  
12 similar containers to form a table centerpiece. It has been  
13 discovered that when so used, the decorative containers are  
14 placed on a stand or base, and the combination of stand or base  
15 and decorative containers should preferably not obscure line  
16 of sight visibility. This is particularly problematic when a  
17 centerpiece is formed having eight decorative containers on a  
18 lower level and four containers on an upper level, such that  
19 cross table visibility is substantially limited. The total  
20 height preferably should not exceed about 21-24 inches (56-61  
21 cm) for a centerpiece having twelve decorative containers,  
22 eight on a bottom row and four on a top row, each being 9-15  
23 inches in length, and the height of the vision obscuring tops  
24 of the container decorations on the lower level being below  
25 about 17 inches and the vision obscuring tops of the container  
26 decorations on the upper level being below about 21-24 inches.  
27 Thus, the height of four or more decorative containers,  
28 arranged in a circular array at the uppermost level, should not  
29 exceed 21-24 inches. The centerpiece design is preferably such  
30 that, when placed on a dining table, a direct line of vision  
31 through the centerpiece is not totally obscured by the  
32 placement of four or more floral pom-poms clustered together  
33 at eye level. A normal dining table has a surface which is 26-  
34 32 inches off the floor. The normal eye level over a table is  
35 approximately 18 inches. When a linear array of decorative  
36 containers is used, then this height limitation is less  
37 important. Thus, while linear arrays may be of any size,  
38 circular arrays, which tend to obscure visibility of persons

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1 across a table when centrally placed, are preferably limited  
2 in density at the normal eye level. A centerpiece designed  
3 according to these criteria ensures that the aesthetic  
4 structure of the centerpiece simulates a high quality floral  
5 centerpiece, placed in the center of a table, without obscuring  
6 various individuals from each other. The stand supporting the  
7 decorative containers may present them in a fan formation  
8 without limitation in height, and preferably having a height  
9 of less than about 24-36 inches, in a radial formation, in a  
10 staggered radial formation, or other such arrangements as are  
11 known in the art. A preferable size for the decorative  
12 containers when used as a table centerpiece is about 8-12  
13 inches. For use in a table centerpiece, the decorative end  
14 closure preferably has a free diameter of 2-8 inches, and the  
15 hollow elongated member preferably is a tube having a diameter  
16 of 1-1.5 inches. While larger sizes with dense concentrations  
17 of members are possible, these are not desirable for use as a  
18 table centerpiece, because they may obscure individuals from  
19 view.

20 In a preferred embodiment, the length of a tube  
21 forming the elongated hollow member has a length to diameter  
22 ratio relationship of less than approximately 40:1 and greater  
23 than approximately 3:1 in order to achieve the aesthetic values  
24 of the desired decorative container.

25 The preferred size relationship of the hollow  
26 elongated member of the container and the pom-pom may be  
27 expressed as follows. The preferred minimum ratio of the  
28 maximum diameter of the pom-pom to the maximum diameter of the  
29 hollow elongated member is approximately 1.25:1. The preferred  
30 maximum ratio of the maximum diameter of the pom-pom to the  
31 maximum diameter of the hollow elongated member is  
32 approximately 35:1.

33 The preferred maximum ratio of the maximum diameter  
34 of the pom-pom and the length of the hollow elongated member  
35 is approximately 2:1, which is especially applicable to  
36 decorative containers having a low aspect ratio.

37 When decorative containers are used in a bouquet  
38 arrangement in a display stand, it is preferable that together  
39 they emulate various types of floral arrangements, known to

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1 those of ordinary skill in the art. This may be achieved by  
2 selection of color, size, shape, structure, length and  
3 positioning.

4 In a preferred embodiment, an array may be prescribed  
5 by an injection molded plastic or vacuum formed plastic rack  
6 or stand 104 including receptacles 105 for the ends of the  
7 decorative containers. A particularly preferred embodiment  
8 is a vacuum formed plastic fan-shaped array for 9 inch long,  
9 1 inch diameter decorative containers.

10 Another embodiment comprises an arrangement of  
11 decorative containers in a rack or display stand in a non-  
12 circular array having multiple levels of origin for the  
13 decorative containers. In a more preferred embodiment, a  
14 multiple level rack is combined with decorative containers  
15 having varying lengths in order to achieve a fountain effect.

16 The rack or stand of the present invention, while  
17 generally used to support and arrange a plurality of decorative  
18 containers may also be designed to support a single decorative  
19 container, and may also be integrally designed into the  
20 container.

21 The present invention also comprises decorative  
22 containers having a much smaller size. In particular, the  
23 decorative containers of the present invention may also have  
24 a form factor in the 3-8 inch range. In this embodiment, the  
25 decorative end closure preferably has a free diameter of  
26 between about 0.75-2.5 inches. The elongated hollow member has  
27 a diameter of between about 0.2-1.5 inches. While the 3-8 inch  
28 decorative containers may generally be used for holding same  
29 purposes contents as larger containers, such as candy or  
30 industrial samples, containers of this size are more preferably  
31 employed with other types of contents. For example, a 6 inch  
32 long, 0.3 inch diameter tubular elongated member with a 1 inch  
33 diameter decorative end closure may contain a writing  
34 instrument, e.g. a pen or pencil.

### 35 CANDY PELLET CONTENTS

36 The term "pellet," as used herein, refers to small  
37 pieces of candy whose sizes are small enough to fit within the  
38 tubular wand, whether or not each piece of candy is wrapped.



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1 When the nature of the candy is such that it will soften or  
2 melt when the wand is likely to be found in an environment  
3 whose ambient temperature is 80 degrees Fahrenheit or higher,  
4 then the candy pellets should be so wrapped to prevent leakage  
5 of the candy. Of course, candies having different melting or  
6 softening temperatures or having differing consistencies may  
7 be wrapped or supplied in accordance with these varying  
8 characteristics. The candy pellets filling the tubular element  
9 11 may be of mixed types.

#### 10 FIFTH EMBODIMENT WITH AN ELECTRONIC MODULE

11 A preferred embodiment of the present invention  
12 provides an electronic module to provide an additional  
13 functional, decorative or novelty effect to the individual  
14 element, an array of elements, or to a plurality of arrays.  
15 The individual elements may be floral-like elements as  
16 disclosed above, or may be another configuration decorative  
17 container having an elongated hollow member, a decorative end  
18 closure, and an aperture to filling the elongated hollow member  
19 with goods.

20 A decorative container apparatus according to the  
21 present embodiment thus comprises a hollow elongated member  
22 serving as a container for user provided goods, a decorative  
23 end closure on at least one end of the hollow elongated member,  
24 and protruding therefrom, and an electronic module providing  
25 enhanced functional, decorative and/or novelty functionality.

26 According to the present embodiment of the invention,  
27 the tubular element or elongated hollow element of the  
28 decorative container includes, preferably at or in the  
29 decorative end closure, certain electronic devices. These  
30 devices may perform any type of function; however, it is  
31 preferred that the electronics be intended for novelty effect  
32 or be of a decorative nature.

33 A first variation, shown in Fig. 21, includes a small  
34 electronic circuit 71 in the end closure 72 which includes a  
35 power source, preferably two watch-type batteries 73,  
36 subminiature or miniature type cell or cells, e.g. size AAA or  
37 9V, with a blinker circuit. The blinker circuit is preferably  
38 formed from a timer circuit, e.g. an ICL7555 CMOS timer

1 circuit, configured with various associated elements to provide  
2 an approximately 5% duty cycle pulse with a repetition rate of  
3 approximately 750 mS to one or more light emitting diodes 74  
4 (LEDs) arranged in the decorative end closure, at the perimeter  
5 of thereof, in the distal end closure or in the elongated  
6 member. The repetition rate and duty cycle can, of course, be  
7 tailored for the aesthetics, ergonomics and particular  
8 components of the particular application. The intensity of the  
9 LEDs may be varied to be visible under the ambient conditions  
10 without being particularly distracting. An ambient  
11 illumination intensity detector may be employed for this  
12 purpose, e.g. a photocell, CdS detector, phtodiode, etc., which  
13 would be used to alter the light output by modulating number  
14 of LEDs, the average ON current to the LEDs, or the repetition  
15 rate (e.g. pulse amplitude modulation, pulse width modulation,  
16 pulse frequency modulation, or a combination of techniques).  
17 The intensity of the LEDs is also influenced by the position  
18 within the element. An LED buried in a pom-pom or puff would  
19 likely require a greater light output than an LED located at  
20 the periphery of the decorative closure.

21 The blinking circuit may be further enhanced by  
22 providing a proximity sensing function to activate the blinking  
23 when a person or other object approaches or is nearby. The  
24 proximity sensing element can be of any known type, but it is  
25 preferred that the element be a sound detection device or a  
26 light intensity detection device. Other known proximity  
27 devices suitable for use in the present invention include an  
28 optical reflectance detector, a sonar-type acoustical  
29 reflection signature detector, a variable capacitance or  
30 reluctance based proximity detection, and a sound recognition  
31 device. These proximity detectors may activate the electronic  
32 device for the duration of the proximity of the person or  
33 object or for a set period after being triggered. Other  
34 arrangements as known in the art may also be suitable. The  
35 proximity sensing device serves two functions. First, it  
36 conserves power by activating the primary electronic function  
37 only when it is likely that there is an observer. Second, it  
38 provides an increased complexity of operation which will be  
39 more interesting to the observer.

1           Other types of activation systems for an electronic  
2 module are also possible, including magnetic switching, radio  
3 frequency signals, infrared signals, motion detection,  
4 mechanical switching, vibration detection, tilt detection and  
5 shake detection.

6           In another embodiment, a "light organ" system, the  
7 electronic circuit includes a plurality of colored LEDs 74,  
8 e.g. red, yellow, green and orange or bicolored or tricolored  
9 LEDs being selectively activated based on a frequency content  
10 of an acoustical signal received by the an acoustical  
11 transducer 75, e.g. a microphone. This embodiment is  
12 especially applicable for use of the device as a centerpiece  
13 at a party where music will be present. The preferable power  
14 source in such a case would likely be 2 "C"-type carbon-zinc  
15 or alkaline cells due to the greater power demand, which may  
16 be inserted into a compartment 77 in a base 76, as shown in  
17 Fig. 22.

18           Another embodiment includes a radio receiving device,  
19 which may be used instead of the acoustic transducer to control  
20 the "light organ" system described previously, or merely as a  
21 novelty radio. In this case, the radio speaker 78 may be  
22 mounded proximate to one or the end closures or hidden in the  
23 decorative end closure.

24           A still further embodiment includes a plurality of  
25 LEDs 79 or preferably multicolored LEDs in the end closure  
26 electronic package 80. These LEDs are arranged densely packed  
27 and illuminating a plurality of light pipes 81. The light  
28 pipes may form a part of the decorative end closure and also  
29 project into the hollow member. The light pipes will transmit  
30 the colored light from the LEDs to the tips 82 thereof. By  
31 varying the color of illumination of the light pipes by the  
32 multicolored LEDs or plurality of LEDs, attractive visual  
33 effects may be obtained. Thus, by cyclically varying the  
34 color, a swirling effect around the decorative ornament may be  
35 obtained.

36           In a preferred embodiment, a plurality of light  
37 sources are sequentially activated around the rack or stand  
38 structure, or in the decorative containers themselves. These  
39 light sources are preferably subminiature incandescent bulbs

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1 or LEDs and are driven by a circuit which may be used to  
2 control both sequence and amplitude of each element. The  
3 sequence may vary according to a plurality of stored programs,  
4 be responsive to externally supplied parameters, or respond to  
5 music or light. The light sources may also be provided in a  
6 dot matrix display to display patterns or messages. The dot  
7 matrix display may be monochrome or multicolor, and is driven  
8 in a known manner.

9 In another embodiment, liquid crystal display (LCD)  
10 elements are provided on either the rack or stand or in  
11 conjunction with the decorative container. The LCD may be used  
12 to create decorative patterns or to convey information.

13 In yet another embodiment, as shown in Fig. 24, a  
14 decorative end closure 83, which preferably includes a pom-pom  
15 13, is affixed to a moveable element 84 which is attached to  
16 an electromechanical drive system 85. The electromechanical  
17 drive system may be activated by any of the aforementioned  
18 proximity sensors or acoustical signal sources. This  
19 embodiment is similar to the known "dancing flower" or "dancing  
20 can" systems known in the art. However, the present system  
21 includes a functional container. Prior art systems do not  
22 comprise an enclosed space provided for holding and/or  
23 transporting contents unrelated to the "dancing" action.

24 The electronic module may also include other types  
25 of vibrating mechanisms, which may be manually initiated or  
26 electronically controlled.

27 A further embodiment of the present invention  
28 comprises a flash lamp, as shown in Fig. 25, preferably a  
29 xenon-type flash lamp or strobe lamp. In this case, the flash  
30 lamp 86 may functionally replace the LEDs described above.  
31 However, flash lamps are somewhat different in configuration  
32 and function from LEDs. Therefore, it is preferred that the  
33 flash lamp be contained in a separate module 87 in proximity  
34 to an end closure of the hollow member. Light emitted by the  
35 flash lamp may exit the hollow member in a number of ways.  
36 First, the hollow member may be formed or transparent or  
37 translucent material 88, thus allowing a direct light  
38 transmission. Second, the flash lamp tube may be in proximity  
39 to a light pipe or preferably surrounded by a plurality of

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1 light pipes 81. The light pipes may then be bundled and form  
2 part of the decorative end closure. Such an arrangement will  
3 create an effect of "lightning tips" of a floral bouquet  
4 because of the transmission of light to the tips 82 of the  
5 light pipes 81. Light pipes 81 may also cause light to be  
6 emitted along the elongated member. Depending on the structure  
7 and composition of the elongated member, the wall itself may  
8 serve as a light pipe. Because flash lamps emit light in the  
9 ultraviolet range, certain fluorescent pigments and components  
10 may be employed to create special lighting and color effects  
11 based on the flash lamp excitation.

12 A further embodiment of the flash lamp embodiment  
13 includes a light sensor 89 which will trigger the flash lamp  
14 in one decorative container in relation to a proximate flash  
15 lamp in another decorative container, or other communication  
16 system. The decorative container should also have a trigger  
17 based on a timer circuit with a relatively long time constant,  
18 so that activation is assured. In this arrangement, after the  
19 lamp has been triggered, it is refractory for a set period of  
20 time determined by one or both of a timer or control circuit  
21 and a flash capacitor recharge circuit. When the refractory  
22 period has expired, the flashlamp is triggerable. The trigger  
23 for the lamp is based on a light detector, adapted to detect  
24 a flash from a neighboring unit. The flash may occur  
25 immediately, thus causing the flash lamps to fire  
26 simultaneously, or after a short delay, which would effect a  
27 staggered firing. Additional circuitry could also be employed  
28 to achieve an extended staggered triggering, so that few or  
29 none of the flash lamps will fire simultaneously, but rather  
30 will initiate a long pattern of flashing across a room. Each  
31 trigger system also includes a relatively long time constant  
32 timer which would trigger the flash after a set period. This  
33 will ensure that the flash process is initiated, and will allow  
34 a single unit to operate. After the flash is triggered, the  
35 process repeats.

36 Extended staggered triggering may be achieved by  
37 setting various triggers with different delays from the  
38 previous flash prior to firing. Thus, the shorter latency  
39 triggers will fire first, followed by the longer latency

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1 triggers. The trigger latency is preferably shorter than the  
2 recharge cycle/refractory period, so that the longer latency  
3 units fire before the shorter latency units recycle.

4 Because the various units are interactive, the  
5 pattern of triggering will change as units are removed from  
6 centerpieces or moved around a room, creating an interesting  
7 effect.

8 An alternative triggering embodiment employs an  
9 acoustic trigger, which may be music or an audible or inaudible  
10 acoustic signal. The acoustic trigger may be a simple sound  
11 pressure level activated trigger, or a complex music or noise  
12 based detection system. Of course, the units may detect a  
13 plurality of different or identical triggers, including nearby  
14 flashes, acoustic signals, and data transmissions, allowing  
15 complex interactions and control of the units.

16 In yet another embodiment, the decorative container  
17 or containers are associated with a base. The base is designed  
18 to be stable, such that the associated containers and base do  
19 not tip over, even when one or more of the containers are  
20 removed, or the containers are unevenly filled with dense  
21 contents. The base may contain an electrical or electronic  
22 circuit, for example a motor driving a rotary platform, on  
23 which the containers are mounted. The base may have a single  
24 level of units, or may have a multilevel array of units. The  
25 base may include an illumination source for illuminating the  
26 decorative containers associated therewith.

27 The base 76 may also include electronics for  
28 controlling or activating effects in the individual containers.  
29 Thus, for example, the base may include a flash lamp or other  
30 optical source and associated drive and control circuitry. A  
31 portion of the hollow elongated member 90, preferably at bottom  
32 portion thereof, is intimately associated with a portion of the  
33 base 79, such that optical output from the base is transmitted  
34 to the member through a light transmissive element 91. At the  
35 point or area of association, a light transmissive member  
36 transmits the light to another portion of the member,  
37 preferably a decorative upper portion having a decorative end  
38 closure, e.g. a pom-pom or other device. The light  
39 transmissive element is preferably divided so that the

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1 decorative end portion may be affixed separately from the light  
2 transmissive element. The decorative end portion may then  
3 radiate the light. This arrangement allows a fully passive and  
4 replaceable decorative container to be associated with a  
5 reusable and sturdy base unit, thus reducing the incremental  
6 cost of the wands. Further, because flash lamps have a high  
7 voltage drive, this arrangement will increase the safety of the  
8 system. Finally, because the tubular member and decorative end  
9 fixture are fully passive, with only a light transmissive  
10 element, no volume is lost due to an electronic module and  
11 associated power source. An added advantage is that more  
12 efficient and economical "C" or "D"-type cells may be used in  
13 the base which serve as both power source and ballast.

14           The base, of course, may also serve other functions.  
15 For example, the base may be an element of a party game, such  
16 as a data transceiver. Thus, each table, on which the base and  
17 decorative containers are placed are a "team". A master of  
18 ceremonies ("MC") asks a question of the audience. When a  
19 person believes that he knows the correct answer, he pushes a  
20 button which activates the base to flash the decorative  
21 elements and send out a signal, which may be optical, infrared,  
22 audio, supersonic, or radio frequency, e.g. AM, FM, spread  
23 spectrum transmission, etc., which prevents other base units  
24 from also being activated. The MC then determines whether the  
25 answer is correct. If so, the "team" scores and the base unit  
26 indicates the increment on a score keeping device, based on the  
27 ruling of a judge, who may be the MC. If the answer is  
28 incorrect, a penalty may be extracted from that team, such as  
29 a score decrement. The second base to register a button push  
30 or activation may then be given an opportunity to answer the  
31 question, in a manner analogous to the first base unit. As in  
32 television game shows, a "daily double" or the like may be  
33 programmed, which may be associated with a unique visual or  
34 auditory signal. A plurality of signal may be available for  
35 each base unit. For example, the first base flashes white  
36 light. If the answer is correct, the base flashes blue light,  
37 which may be formed by filtering the output of a single white  
38 light source or providing a plurality of different color light  
39 sources. An incorrect answer causes a red flashing light. A

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1 daily double or other special feature causes a green flashing.  
2 Alterations and variations of the present example will be known  
3 to those skilled in the art, and are included within the scope  
4 hereof.

5 In another embodiment, each decorative container  
6 device contains as traneiver, which may be infrared or radio  
7 frequency, e.g. TDMA, FDMA, CDMA, spread spectrum, etc., to  
8 provide "cellular wanderful" (TM) communication between guests.  
9 This telecommunication system may be centrally controlled, or  
10 a direct communication type system with distributed control.  
11 Calls or transmissions may be made anonymously by providing a  
12 voice altering function. The telecommunication function may  
13 also be used to communicate with food service staff to assist  
14 in providing excelent service at a party.

15 In order to assure efficient transmission of light  
16 into and across light pipes, a fluid or sealant having  
17 appropriate refractive index may be used. This fluid or  
18 sealant should be selected to be in accord with the intended  
19 use of the device. Thus, if foodstuffs are contained in the  
20 hollow member, any such fluid or sealant must be nontoxic and  
21 approved for such use and reasonably contained away from the  
22 edible contents. Thus, if contained properly, a silicone or  
23 food oil may be used. Preferably, however, an appropriate  
24 food-grade silicone RTV sealant may be used to ensure efficient  
25 light transmission between the various optical elements.

26 Thus, it is apparent that the invention, according  
27 to the present electronic embodiments comprises an elongated  
28 member having a decorative end closure, an elongated hollow  
29 member, serving as a container for user definable contents and  
30 an electronic or electrical element designed to enhance the  
31 decorative or novelty value of the apparatus. Further, while  
32 the container apparatus may be used alone, various features  
33 become possible when a plurality of containers are used in  
34 combination. Finally, the electronic module may be physically  
35 separated from the container to provide a reduced cost  
36 container with a reusable electronic module. This latter  
37 arrangement facilitates the use of the container as a party  
38 favor and enhances the decorative nature of an arrangement of  
39 the containers as a party centerpiece.



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1 STORED ENERGY EMBODIMENT

2           The invention according to the present embodiments  
3 comprises a hollow elongated member serving as a container for  
4 user provided goods, a decorative end closure on at least one  
5 end of the hollow elongated member, said decorative end closure  
6 being made of a material compatible with the intended use, and  
7 a device adapted for the rapid release of stored energy  
8 producing a novelty and/or decorative function.

9           In these embodiments of the present invention, the  
10 hollow elongated member or the decorative end closure may be  
11 associated with a single use novelty device, such as a  
12 sparkler, "party popper", expulsive streamer, or other device  
13 which provides an pyrotechnic, explosive or explosive-like  
14 release of energy in a safe and controlled manner. The  
15 decorative end closure in this instance is associated with a  
16 device which stores energy which may controllably be released,  
17 and which, when released, produces a decorative or novelty  
18 effect. The stored energy may be chemical or explosive,  
19 pneumatic, mechanical, or other known energy storage means.  
20 The stored energy is preferably released under the control or  
21 influence of a person.

22           Mechanical energy storage systems are known in the  
23 art, and include springs. A spring may be advantageously  
24 employed to expel objects from a tube or other device. Thus,  
25 streamers, rice, jumping "snakes" and other articles may be  
26 forcefully expelled using stored mechanical force.

27           The function of a sparkler device is known in the  
28 art. In general, these comprise a ground mixture of a metal-  
29 based pyrotechnic composition bonded to a wire. When ignited,  
30 the pyrotechnic composition burns brightly from a distal end  
31 to a proximal end, the ignited portion producing a bright glow  
32 and radially expulsing sparks, and igniting an adjacent portion  
33 of bonded pyrotechnic composition, so that the combustion  
34 process proceeds in a controlled and spectacular manner.  
35 Various compositions may be used which burn in various colors.  
36 When the present invention comprises a sparkler, the decorative  
37 end closure is preferably formed from fire proof or fire  
38 retardant materials, and provides a small aperture for securely  
39 mounting the central wire of the sparkler. A plurality of

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1 sparklers may also be mounted on each decorative end closure.  
2 It is also within the scope of the present invention to provide  
3 the sparklers attached to the hollow elongated member or to the  
4 base, or contained within the hollow member.

5 In other embodiments, as shown in Fig. 28, a "party  
6 popper" 92 element is included as a part of or in association  
7 with the decorative end closure having a pom-pom 13 or the  
8 like. A "party popper" is a device which contains a small  
9 amount of explosive composition, a fireproof material to be  
10 expelled from the popper, a releasable end cap, an outer  
11 container and an ignition device. The ignition device is a  
12 string which, when forcefully extracted from the outer  
13 container, causes ignition of the explosive composition. The  
14 pressure in the outer container rapidly increases, until the  
15 releasable end cap is expelled. The fireproof material is  
16 released and forcefully expelled. The fireproof material is  
17 preferably a streamer. In the present embodiment, the "party  
18 popper" 92 device is preferably incorporated at the center of  
19 the decorative end closure 93 or at the distal end of the  
20 decorative container 94. The decorative end closure in this  
21 instance would preferably be fire proof. The ignition device  
22 string 95 is routed from an internal portion of the decorative  
23 end closure to an accessible location on the outside of the  
24 decorative container. When pulled, the string will ignite the  
25 small amount of explosive and cause the forceful expulsion of  
26 streamers or the like, and create a festive novelty effect.  
27 A party popper can also be triggered by removing or opening a  
28 closure device of the decorative container. The explosive  
29 release also causes a popping sound. Alternatively, the string  
30 ignition device could be replaced with an electronic ignition  
31 device. In this instance, an electric current locally heats  
32 a wire to a temperature which either directly causes ignition  
33 of the explosive charge, or ignites a primer charge. In the  
34 case of electric ignition, it is preferred that the electric  
35 current source be shipped separately from the decorative  
36 container and that the necessary electrical connections be made  
37 immediately prior to use. In a preferred embodiment, the  
38 electric current source resides in a base unit, and the  
39 decorative containers are inserted in holders which facilitate

1 the electrical connections. The "party popper" may be  
2 triggered by a manually operated electrical switch, or by other  
3 means. For example, the trigger could be a radio frequency  
4 signal, an infrared light transmission or an ultrasonic wave.  
5 In any event, the device should have a fail-safe trigger  
6 mechanism and also be positioned to avoid injury in the event  
7 of inadvertent or unexpected ignition.

8 In a preferred embodiment, a "wedding popper"  
9 contains rice 96 and has a party popper 92 device. When opened  
10 or activated, the party popper 92 ignites, releasing streamers.  
11 A spring 98 loaded plunger 97 may advantageously expel the rice  
12 96 toward a wedding couple. A wedding popper may be a reusable  
13 or rechargeable device, or may be a keepsake.

14 The "party popper" embodiment decorative container  
15 may also be used in conjunction with the party game embodiment,  
16 such that the decorative containers of a winner will be  
17 activated.

18 In another embodiment, the use of explosive  
19 compositions is avoided in order to facilitate transportation  
20 and reduce safety hazards. The stored energy source is a  
21 compressed gas canister, which may be air, nitrogen, helium,  
22 nitrous oxide or carbon dioxide. The canister may be a metal  
23 cartridge, e.g. carbon dioxide, air, or nitrous oxide. When  
24 a standard-type cartridge is employed, a mechanical element  
25 punctures an end closure of the canister, causing the release  
26 of gas. This release may be rapid and be used to expel  
27 streamers or the like. The gas release may also be modulated  
28 and controlled, to produce a variety of mechanical or acoustic  
29 effects, such as driving a turbine device, causing a turbulent  
30 flow in proximity to the decorative end closure to cause  
31 movement, activating an air-powered horn, inflating a balloon,  
32 expelling confetti or streamers, propel objects, etc.  
33 Generally available gas canisters contain more gas than is  
34 generally necessary for a single decorative container. In this  
35 case, a single gas canister may be provided in a central base,  
36 which is connected by tubes or hoses to the decorative end  
37 closure or hollow elongated member. The release of gas may be  
38 controlled or uncontrolled, and the decorative containers may  
39 be subjected to the flow of gas simultaneously or sequentially.

1           As an alternative to a gas canister, pressurized gas  
2 may be created in situ, immediately prior to use. This gas may  
3 be stored in a closed compartment 100 in the hollow elongated  
4 member 101 or proximate to the decorative end closure 102, as  
5 shown in Fig. 29. The closed compartment may be formed  
6 integrally by the hollow elongated member or by means of a  
7 volume confined gas impermeable membrane (e.g. a balloon 103  
8 in an enclosed space). The pressurized gas may be formed by  
9 means of an external or internal pump, the release of carbon  
10 dioxide from the chemical reaction of an acid with sodium  
11 bicarbonate in aqueous solution, the sublimation of dry ice,  
12 preferably accelerated by contact with water, release of carbon  
13 dioxide from carbonated water, etc. The pressurization of air  
14 in a balloon, at least a part of which is external to the  
15 container, may advantageously be used for decorative purposes.

16           In those instances where the gas is produced in  
17 conjunction with an aqueous environment, a gas-liquid  
18 separation system, such as a gas permeable membrane, is  
19 preferably used to avoid the forceful release of liquids,  
20 unless this is the desired effect.

21           The decorative container may also be used as a  
22 watergun. In this case, water may be directly pressurized and  
23 expelled through a small aperture, or the water may be subject  
24 to pressurization by a gas, which provides a pressure  
25 reservoir, allowing a continuous stream of water to be  
26 expelled. The compressed gas may be in direct contact with the  
27 water or may be separated by a flexible membrane or other means  
28 for transmitting the pressure. This embodiment is similar in  
29 respects to a "supersoaker" (TM) watergun system.

30           The compressed gas, when released, is preferably  
31 shunted to a secondary container wherein the streamers or other  
32 contents are held. One portion of the secondary container  
33 comprises a large aperture pressure relief valve. When the  
34 pressure in the secondary container exceeds the relief pressure  
35 of the valve, the valve opens. Because of the large aperture  
36 of the valve, the streamers are released and forcefully  
37 expelled.

38           The foregoing descriptions of embodiments are  
39 exemplary only, and other pyrotechnic and pneumatic effects as

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1 known in the art may also be included as components of  
2 embodiments of the system of the present invention.

### 3 OTHER DEVICES

4           The decorative end closure or hollow elongated  
5 element may also include a mechanical or electronic acoustic  
6 device. Thus, when activated, the decorative container will  
7 make noise. The noise may be a radio receiving device, a music  
8 box (preprogrammed music) device, a musical instrument (human  
9 controlled sounds), or noise maker. An example noise maker is  
10 a device in which a weighted piston moves within a cylinder by  
11 gravity, wherein air on one side of the piston passes through  
12 an aperture with a vibrating element to make a sound. This  
13 sound may simulate a cow, for example.

14           The decorative container may also serve as a whistle,  
15 activated by a person blowing by mouth or by moving or waving  
16 the elongated member in such manner as to cause a resonance of  
17 air in the hollow member. When used as a whistle, the  
18 container preferably has a large open space, and therefore has  
19 only a small amount of contents, or indeed, no contents at all.  
20 In addition, the decorative container may also serve to hold  
21 goods when filled, and as a whistle when empty.

### 22 PEN EMBODIMENT

23           A preferred embodiment comprises a pen having, at a  
24 non-writing end thereof, a compartment bounded on at least a  
25 portion of its radial surface by a transparent window, in which  
26 a viscous fluid is contained. In the fluid is a translatable  
27 element having a density greater than the fluid, being free to  
28 settle by gravitational forces to a lower end of the  
29 compartment. The translatable element preferably moves along  
30 a guide and has a graphic imprinted on it, with further  
31 graphics present in the compartment.

### 32 EMBODIMENT FOR PACKAGING COSMETICS

33           Containers, preferably in the range 3-6 inches, but  
34 generally in a broad range of sizes, may also be used with  
35 various types of cosmetic products. These products include  
36 perfumes, colognes, eye liner, mascara, blush, nail polish,

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1 etc. Because of the relatively high cost of cosmetics and the  
2 generally relatively small size of the containers, the  
3 materials used in the decorative end closure can reasonably be  
4 made of higher quality and/or cost materials and constructions  
5 than containers intended for other purposes. Thus, the  
6 decorative end closure could be constructed entirely of fiber  
7 optic elements 81, with an LED 74 or incandescent bulb in the  
8 cap, powered by watch-type batteries 73 and activated by a  
9 switch 106. Such construction might be less suitable for  
10 larger size decorative containers. Other light sources may  
11 also be used in either the tubular element or the rack  
12 structure, or both, including neon bulbs, fluorescent bulbs,  
13 electroluminescent panels and the like.

14 In another embodiment of a decorative cosmetic  
15 container, the decorative end closure comprises a cosmetic  
16 applicator. Thus, the pom-pom structure also functions as a  
17 brush or the like. This may be formed of natural or synthetic  
18 fibers or strands. Preferably, the fibers or strands are of  
19 natural hair and may be colored or multicolored with a  
20 predetermined pattern, being coordinated with the hollow  
21 elongated member.

22 When the decorative container is intended for use as  
23 a direct cosmetic container, the closure system generally  
24 should form a good seal, have a life cycle of a sufficiently  
25 large number of opening/closing cycles for the intended use,  
26 and be easily operable by hand using the pads of the thumb and  
27 forefinger only. This is because cosmetic users often have  
28 long fingernails, which may have wet nail polish on them. The  
29 decorative container for cosmetic use has an elongated  
30 decorative end closure which has a surface externally  
31 accessible and has a screw-type closure. The decorative end  
32 closure may extend away from the aperture of the hollow  
33 elongated container, or may act as a sleeve which fits  
34 circumjacent to a portion of the hollow elongated container.  
35 The closure system may also comprise a bayonet closure, a  
36 friction seal, an O-ring seal, snap closure or other known  
37 closure systems.

38 A cosmetic container according to the present  
39 invention may be used for various types of facial cosmetics and

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1 skin care products, perfumes, bath beads, bath salts, soap  
2 flakes, nail polish, and the like. When the contents are  
3 liquid, the container preferably comprises an elongated squeeze  
4 bottle with a nozzle at an apex thereof. The nozzle may be a  
5 part of or embedded in a pom-pom, or may be separate from the  
6 decorative closure.

7 In the event that the decorative container is a  
8 direct container for cosmetics, it is preferable that the  
9 decorative end closure be a sheath-like or a screw on closure.

#### 10 FRAGRANCE OR AROMA DISPERSION

11 The decorative container of the present invention may  
12 advantageously be used as a fragrance or aroma dispersion  
13 device. The decorative end closure has a high surface area,  
14 and the elongated hollow member projects the decorative end  
15 closure into free space. Further, the elongated hollow member  
16 has a sufficient volume to hold a fragrance source in addition  
17 to other contents, if the fragrance is a liquid. When used as  
18 a fragrance or aroma disperser, a wick or other controlled flow  
19 device, e.g. capillary tube, transmits the essential oil or  
20 fragrance solvent into or near the decorative end closure. The  
21 fragrance may then be dispersed into the air both directly and  
22 secondarily from the surfaces of the elements making up the  
23 decorative end closure.

24 It is preferable that the decorative end closure have  
25 a floral appearance. In this case, the fragrance is preferably  
26 a floral scent, and more preferably a scent relating to the  
27 type of flower simulated by the decorative end closure.

28 In a preferred embodiment, a decorative container is  
29 used for perfume or as a perfume sampler. In this case, the  
30 decorative end closure or parts thereof are impregnated or  
31 treated with the perfume aroma components. The decorative  
32 container therefore may be used as a marketing tool which  
33 provides both a sample of the perfume and a take-home gift.

#### 34 BOTTLE TOP EMBODIMENT

35 Another preferred embodiment of the present invention  
36 comprises a decorative fixture for a bottle, more preferably  
37 a glass bottle containing a liquid, and most preferably for

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1 wine or liquor, comprising a pom-pom affixed to an attachment  
2 system for attachment to the top of the bottle, as shown in  
3 Fig. 31. The pom-pom 13 is affixed to an endcap 108, and  
4 preferably has a diameter greater than the diameter of the neck  
5 of the bottle, and may be greater than a maximum diameter of  
6 the bottle. The attachment system 107 may be a plastic, foam,  
7 rubber, fabric, netting, or paper sleeve which fits over the  
8 neck of the bottle. The attachment system may also be a series  
9 of rings, clip or clips. Preferably the attachment system is  
10 designed to accomodate variations in the neck size of various  
11 bottles. The sleeve may be a decorative sleeve, and  
12 information bearing sleeve or a transparent sleeve.

13 In a preferred embodiment of a bottle top, the  
14 attachment system comprises heat shrink tubing which is placed  
15 around the neck of a bottle and heated with a heat source, such  
16 as an electric heat gun. In another embodiment, the attachment  
17 system comprises a styrofoam endcap sized to form a compression  
18 fit over the neck of the bottle.

#### 19 DECORATIVE CONTAINERS COMBINED WITH OTHER OBJECTS IN 20 CENTERPIECES

21 The decorative container according to the present  
22 invention may advantageously be arranged with real or  
23 artificial flowers or ballons or both in a centerpiece  
24 arrangement. In such instance, the decorative container(s) may  
25 be selected to match or to contrast the flowers or balloons.

#### 26 SHIPPING METHOD

27 The decorative container of the present invention  
28 poses a particular difficulty in transport and shipping. In  
29 particular, when the decorative containers are placed in a  
30 stand or base which holds a plurality of units, it is difficult  
31 to provide appropriate packing materials and containers. It  
32 has now been discovered that the decorative containers may be  
33 safely and easily be transported by first wrapping the array  
34 of decorative containers in the stand or base in stretchable  
35 plastic wrap such as Saran wrap or equivalent. The wrapped  
36 assembly may then be placed in a cardboard box, and the base  
37 is firmly positioned with respect to an outer cardboard



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1 shipping box. Additional padding material such as crumpled  
2 newspaper or shipping "popcorn", which may be made of  
3 styrofoam, starch, popcorn, etc., may also be employed. The  
4 preferable material is polyvinyl chloride (PVC) film, which has  
5 a self-cling property. The film is stretched around the  
6 members forming a bound system, held in place by the splaying  
7 of the elongated members, at a portion distant from the  
8 decorative end closure to avoid crushing thereof, to form a  
9 bound system of rack and wands. In a preferable embodiment,  
10 the rack comprises a plurality of plates having planes parallel  
11 to the base, the plates having a fixed distance from the base  
12 of the rack. Between any two plates, a portion of the hollow  
13 elongated members is exposed, and the plastic wrap is encircled  
14 around these members. Because the wrap has "cling", it holds  
15 the elements in place with respect to the rack. The rack is  
16 preferably positioned with respect to the outer shipping  
17 container by a sleeve, preferably formed of corrugated paper,  
18 which presses the rack against the base of the outer container  
19 which is held in place by the top of the shipping container.  
20 Alternatively, a structure fixed to the base of the shipping  
21 container may positively engage the rack and hold it in  
22 relation to the shipping container.

### 23 CHRISTMAS TREE ORNAMENT

24 In a preferred format, the decorative container of  
25 the present invention may be used as a hanging ornament for,  
26 e.g. a christmas tree, etc., as shown in Fig. 20. Such hanging  
27 ornamental use of the decorative containers, such as a floral-  
28 like element 10 is characterized in that there must be a hook  
29 or place for attachment of a hanging device 109 to safely  
30 support the entire decorative container, preferably by means  
31 of a tether 110, holding the tubular element by means of a  
32 snugly fitting ring 111. The size and weight of the decorative  
33 container should be low enough such that the tree limb, etc,  
34 from which the decorative container is suspended is not overly  
35 stressed. Thus, for such application, the container should be  
36 6-12 inches long with a hollow elongated member diameter of  
37 approximately 0.75-1.25 inches. Decorative containers having  
38 a weight greater than that which would safely be supported by

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1 a single tree limb, etc, may have a plurality of suspension  
2 elements for attachment to a plurality of suspension points,  
3 to distribute the load.

4           When used as a christmas ornament, the end of the  
5 hollow elongated member distal to the decorative end closure  
6 may be formed like a candy cane. The hollow elongated member  
7 itself may be further embellished with a helically wound ribbon  
8 member 112 about its periphery. The ribbon member is  
9 preferably located around the elongated hollow member; however,  
10 if the elongated hollow member has a transparent or translucent  
11 wall, it is possible to place a ribbon on the inner surface.

12           While there have been shown and described preferred  
13 embodiments of a centerpiece assembly simulating floral bouquet  
14 in accordance with the invention, it will be appreciated that  
15 many changes and modifications may be made therein without,  
16 however, departing from the essential spirit thereof.

## CLAIMS

2 I CLAIM

3 1. A centerpiece assembly comprising:

4 (a) an array of elements simulating flowers a stem formed  
5 by a tubular wand filled with candy pellets and a decorative  
6 pom-pom attached to the upper end of the wand to simulate a  
7 flower; and

8 (b) a rack having holes therein to receive the respective  
9 stems of the array to support the elements in a bouquet  
10 configuration.

11 2. A centerpiece assembly as set forth in claim 1, wherein  
12 said wand is provided at its lower end with a removable  
13 stopper.

14 3. A centerpiece as set forth in claim 1, wherein said wand  
15 is formed of transparent material, and said pellets are colored  
16 to impart color to the stem.

17 4. A centerpiece assembly as set forth in claim 1, wherein  
18 said wand is formed of acrylic polymer.

19 5. A centerpiece assembly as set forth in claim 1, wherein  
20 said pellets are formed by colored jelly beans.

21 6. A centerpiece assembly as set forth in claim 1, wherein  
22 said pom-pom is formed by a puff having a distinctive color  
23 from which emerges an upheard cluster of multi-colored ribbons.

7. A centerpiece as set forth in claim 1, wherein said rack comprises a base on which is anchored a center post on which is supported at different levels above the base plate lower and upper tier plates, each having a ring of holes therein coaxial with the center post, the ring on the upper tier having a larger diameter than the ring on the lower tier, whereby a stem of a respective element in said array, when inserted in a hole in the upper ring and a corresponding hole in the lower ring has its end then resting on the base plate and is outwardly inclined relative to the base plate.

34 8. A centerpiece assembly as set forth in claim 7, wherein  
35 said base plate and said tier plate are circular and are formed  
36 of rtansparent, synthetic plastic material.

37 9. A centerpiece assembly as set forth in claim 7, wherein  
38 said rack further includes third and fourth tier plates  
39 supported by said center post at higher levels above said upper

1 tier plate, said third and fourth tier plates each having a  
2 ring of holes therein coaxial with the center post, whereby a  
3 respective stem of an element in a second array of said  
4 elements inserted in a hole in the fourth ring and a  
5 corresponding hole in the third ring then has its end resting  
6 on the upper tier plate and is outwardly inclined relative to  
7 said upper tier plate.

8 10. A centerpiece assembly as set forth in claim 7, wherein  
9 said center post has a circular well at its upper end to  
10 receive a stem of one of the elements.

11 11. A floral element adapted to function as a wand, said  
12 element comprising:

13 (a) a tubular stem formed of transparent material  
14 fillable with colored candy pellets which impart color to the  
15 stem;

16 (b) a decorative pom-pom attached to the upper end of the  
17 stem to simulate a flower; and

18 (c) a removable stopper at the lower end of the stem to  
19 hold the pellets therein.

20 12. An element as set forth in claim 1, wherein said pom-pom  
21 has a root which extends through an end cap attached to the  
22 upper end of the stem, and further including an inner cap  
23 secured to said stem to separate the root of the pom-pom from  
24 the candy pellets.

25 13. A container, comprising:

26 an elongated hollow member having two ends, an axis, a  
27 maximum width and an aperture, being adapted to contain  
28 objects;

29 a decorative element being axially attached to one of the  
30 ends of said elongated hollow member and having a maximum width  
31 greater than said maximum width of the elongated hollow member;

32 a pom-pom-like portion included in said decorative  
33 element, said pom-pom-like portion having segments that radiate  
34 in substantially three dimensions to substantially fill a  
35 central region;

36 an attachment system for said pom-pom-like portion for  
37 axially attaching said pom-pom-like portion to said elongated  
38 hollow member; and

39 an openable cover adapted to obscure said aperture and to

- 1 substantially contain the objects in said elongated hollow  
2 member.
- 3 14. The container according to claim 13, wherein the objects  
4 are edible foodstuffs.
- 5 15. The container according to claim 14, wherein the edible  
6 foodstuffs are colored candies.
- 7 16. The container according to claim 13, wherein the objects  
8 are selected from the group consisting of solids and liquids.
- 9 17. The container according to claim 13, wherein said pom-pom-  
10 like portion has floral characteristics.
- 11 18 The container according to claim 13, further comprising  
12 a controllable release energy source.
- 13 19. The container according to claim 13, further comprising  
14 a module having an controllable release energy source selected  
15 from the group consisting of electrical, mechanical, chemical,  
16 explosive, and pneumatic.
- 17 20. The container according to claim 19, further comprising  
18 an electronic module.
- 19 21. The container according to claim 20, wherein said  
20 electronic module performs a function selected from the group  
21 consisting of light generation, light reception, data  
22 communication, audio reception, audio transmission, and  
23 electromechanical control.
- 24 22. The container according to claim 19, wherein said  
25 controlled controlled release energy source causes the  
26 expulsion of substances from said container.
- 27 23. A display, comprising:
- 28 a plurality of containers, each comprising an elongated  
29 hollow member having two ends, an axis, a maximum width and an  
30 aperture, being adapted to contain objects; a decorative  
31 element being axially attached to one of the ends of said  
32 elongated hollow member and having a maximum width greater than  
33 said maximum width of the elongated hollow member; a pom-pom-  
34 like portion included in said decorative element, said pom-pom-  
35 like portion having segments that radiate in substantially  
36 three dimensions to substantially fill a central region; an  
37 attachment system for said pom-pom-like portion for axially  
38 attaching said pom-pom-like portion to said elongated hollow  
39 member; and an openable cover adapted to obscure said aperture

1 and to substantially contain the objects in said elongated  
2 hollow member; and

3 a rack for arranging said plurality of containers in an  
4 arrangement.

5 24. The display according to claim 23, wherein said  
6 arrangement is selected from the group consisting of bouquets,  
7 fans, frontals, laterals, cascades, conicals, and fountains.

8 25. The display according to claim 23, wherein said pom-pom-  
9 like portion has floral characteristics.

10 26. The display according to claim 23, wherein the objects  
11 are edible foodstuffs.

12 27. The display according to claim 26, wherein the edible  
13 foodstuffs are colored candies.

14 28. The display according to claim 23, wherein the objects are  
15 selected from the group consisting of solids and liquids.

16 29. The display according to claim 23, wherein said pom-pom-  
17 like portion has floral characteristics.

18 30. The display according to claim 23, further comprising a  
19 controllable release energy source.

20 31. The display according to claim 23, further comprising a  
21 module having an controllable release energy source selected  
22 from the group consisting of electrical, mechanical, chemical,  
23 explosive, and pneumatic.

24 32. The display according to claim 25, further comprising an  
25 electronic module.

26 33. The display according to claim 32, wherein said electronic  
27 module performs a function selected from the group consisting  
28 of light generation, light reception, data communication, audio  
29 reception, audio transmission, and electromechanical control.

30 34. The container according to claim 31, wherein said  
31 controlled controlled release energy source causes the  
32 expulsion of substances from said container.

33 35. A cosmetic container comprising:

34 an elongated hollow member having two ends, an axis, a  
35 maximum width and an aperture, being adapted to contain a  
36 cosmetic substance;

37 a decorative element being axially attached to one of the  
38 ends of said elongated hollow member and having a maximum width  
39 greater than said maximum width of the elongated hollow member;

- 45 -

1 a puff-like portion included in said decorative element,  
2 said puff-like portion having a soft texture and a  
3 substantially filled central region;

4 an attachment system for said puff-like portion for  
5 axially attaching said puff-like portion to said elongated  
6 hollow member; and

7 an openable cover adapted to obscure said aperture and to  
8 substantially contain the objects in said elongated hollow  
9 member.

10 36. The cosmetic container according to claim 35, wherein said  
11 puff-like portion comprises a cosmetic applicator.

12 37. The container according to claim 13, further comprising  
13 a source of fragrance associated with said pom-pom-like  
14 portion.

15 38. The display according to claim 23, further comprising an  
16 ornament selected from the group consisting of a ballon, a  
17 flower or an artificial flower.

18 39. The display according to claim 23, wherein said ornament  
19 is a flower or artificial flower.

20 40. The display according to claim 23, further comprising a  
21 shipping enclosure having a bottom and a top, having an  
22 apparatus for retaining said rack proximate to said bottom of  
23 said shipping enclosure, and a plastic cling wrap around said  
24 containers, holding said containers fixed in relation to said  
25 rack.

## AMENDED CLAIMS

1 [received by the International Bureau on 25 January 1994 (25.01.94) ;  
2 original claims 1, 11, 12, 23 and 37 amended ;  
3 remaining claims unchanged (5 pages)]

3 1. A centerpiece assembly comprising:

4 (a) an array of elements, each element comprising a stem  
5 portion having a hollow, an end and a decorative pom-pom  
6 portion positioned distally with respect to said end, and  
7 wherein said stem portion and said pom-pom portion simulate a  
8 flower; and

9 (b) a structure to receive said respective stem portions  
10 of said array to support said elements in a bouquet-like  
11 configuration.

12 2. A centerpiece assembly as set forth in claim 1, wherein  
13 access to said hollow is provided axially.

14 3. A centerpiece as set forth in claim 1, wherein said hollow  
15 comprises transparent material and colored contents.

16 4. A centerpiece assembly as set forth in claim 3, wherein  
17 said contents comprise colored jelly beans.

18 5. A centerpiece assembly as set forth in claim 1, wherein  
19 said pom-pom portion has an axis and is formed by a puff having  
20 a distinctive color from which emerges an axially directed  
21 cluster of multi-colored ribbons.

22 6. A centerpiece as set forth in claim 1, wherein said  
23 structure is a rack which comprises a base on which is anchored  
24 a center post on which, at different levels above the base  
25 plate, lower and upper tier plates are supported, each having  
26 a ring of holes therein coaxially directed with respect to said  
27 center post, said ring of said upper tier having a larger  
28 diameter than said ring of said lower tier, whereby a stem  
29 portion of a respective element in said array, when inserted  
30 in a hole in said upper ring and a corresponding hole in said  
31 lower ring rests on said base plate and is outwardly inclined  
32 relative to said base plate.

33 7. A centerpiece assembly as set forth in claim 6, wherein  
34 said base plate and said tier plate are circular and are formed  
35 of transparent plastic material.

36 8. A centerpiece assembly as set forth in claim 6, wherein  
37 said rack further comprises third and fourth tier plates  
38 supported by said center post at higher levels above said upper  
39 tier plate, said third and fourth tier plates each having a



1 ring of holes therein coaxially directed with respect to said  
2 center post, whereby a respective stem portion of an element  
3 in a second array of said elements inserted in a hole in said  
4 fourth ring and a corresponding hole in said third ring rests  
5 on said upper tier plate and is outwardly inclined relative to  
6 said upper tier plate.

7 9. A centerpiece assembly as set forth in claim 6, wherein  
8 said center post has a circular well at its upper end to  
9 receive a stem portion of an element.

10 10. An element as set forth in claim 1, wherein said pom-pom  
11 portion comprises a root which extends through an end cap  
12 axially attached to said hollow stem portion, and further  
13 including an inner cap secured to said hollow stem portion to  
14 separate said root of said pom-pom portion from the candy  
15 pellets.

16 11. A floral element adapted to function as a wand, said  
17 element comprising:

18 (a) a transparent tubular stem having an end, fillable  
19 with colored candy pellets which impart color to the stem;

20 (b) a decorative pom-pom positioned distally with respect  
21 to said end to simulate a flower; and

22 (c) an openable seal to hold the pellets therein.

23 12. A container, comprising:

24 an elongated hollow member adapted to contain objects,  
25 having two ends, a maximum width and an aperture;

26 a decorative element being positioned distal to one of  
27 said ends of said elongated hollow member and having a maximum  
28 width greater than said maximum width of said elongated hollow  
29 member;

30 a pom-pom-like portion included in said decorative  
31 element, said pom-pom-like portion having segments that radiate  
32 in substantially three dimensions to substantially fill a  
33 central region;

34 a system for positioning said pom-pom-like portion  
35 distally with respect one of said ends of said elongated hollow  
36 member; and

37 an openable seal adapted to obscure said aperture and to  
38 substantially contain the objects in said elongated hollow  
39 member.

- 1 13. The container according to claim 12, wherein the objects  
2 are edible foodstuffs.
- 3 14. The container according to claim 13, wherein the edible  
4 foodstuffs are colored candies.
- 5 15. The container according to claim 12, wherein the objects  
6 are selected from the group consisting of solids and liquids.
- 7 16. The container according to claim 12, wherein said pom-pom-  
8 like portion has floral characteristics.
- 9 17. The container according to claim 12, further comprising  
10 a controllably releasable energy source.
- 11 18. The container according to claim 12, further comprising  
12 a module having a controllably releasable energy source  
13 selected from the group consisting of electrical, mechanical,  
14 chemical, explosive, and pneumatic.
- 15 19. The container according to claim 18, further comprising  
16 an electronic module.
- 17 20. The container according to claim 19, wherein said  
18 electronic module performs a function selected from the group  
19 consisting of light generation, light reception, data  
20 communication, audio reception, audio transmission, and  
21 electromechanical control.
- 22 21. The container according to claim 18, wherein said  
23 controllably releasable energy source causes the expulsion of  
24 substances from said container.
- 25 22. The container according to claim 12, further comprising  
26 a source of fragrance associated with said pom-pom-like  
27 portion.
- 28 23. A display, comprising:  
29 a plurality of elements each comprising an elongated  
30 hollow member adapted to contain objects, having two ends, a  
31 maximum width and an aperture; a decorative element being  
32 positioned distally to one of said ends of said elongated  
33 hollow member and having a maximum width greater than said  
34 maximum width of said elongated hollow member; a pom-pom-like  
35 portion included in said decorative element, said pom-pom-like  
36 portion having segments that radiate in substantially three  
37 dimensions to substantially fill a central region; a system for  
38 positioning said pom-pom-like portion distally with respect to  
39 one of said ends of said elongated hollow member; and an

1 openable seal adapted to obscure said aperture and to  
2 substantially contain the objects in said elongated hollow  
3 member; and

4 a structure for positioning said plurality of containers  
5 in an arrangement.

6 24. The display according to claim 23, wherein said  
7 arrangement is selected from the group consisting of bouquets,  
8 fans, frontals, laterals, cascades, conicals, and fountains.

9 25. The display according to claim 23, wherein said pom-pom-  
10 like portion has floral characteristics.

11 26. The display according to claim 23, wherein the objects  
12 are edible foodstuffs.

13 27. The display according to claim 26, wherein the edible  
14 foodstuffs are colored candies.

15 28. The display according to claim 23, wherein the objects are  
16 selected from the group consisting of solids and liquids.

17 29. The display according to claim 23, further comprising a  
18 controllably releasable energy source.

19 30. The display according to claim 23, further comprising a  
20 module having an controllably releasable energy source selected  
21 from the group consisting of electrical, mechanical, chemical,  
22 explosive, and pneumatic.

23 31. The display according to claim 23, further comprising an  
24 electronic module.

25 32. The display according to claim 31, wherein said electronic  
26 module performs a function selected from the group consisting  
27 of light generation, light reception, data communication, audio  
28 reception, audio transmission, and electromechanical control.

29 33. The display according to claim 30, wherein said  
30 controllably releasable energy source causes the expulsion of  
31 substances from at least one of said containers.

32 34. The display according to claim 23, further comprising an  
33 ornament selected from the group consisting of a balloon, a  
34 flower and an artificial flower.

35 35. The display according to claim 23, further comprising an  
36 ornament selected from the group consisting of a flower and an  
37 artificial flower.

38 36. The display according to claim 23, further comprising a  
39 shipping enclosure having a bottom, a top, an apparatus for

1 retaining said positioning structure proximate to said bottom  
2 of said shipping enclosure, and plastic cling wrap, said  
3 plastic cling wrap encircling said containers to hold said  
4 containers in fixed relation to said rack.

5 37. A cosmetic container comprising:

6 an hollow member adapted to contain a cosmetic substance,  
7 having an end, a maximum width and an aperture;

8 a decorative element being positioned distal to said end  
9 of said hollow member and having a maximum width greater than  
10 said maximum width of said hollow member;

11 a puff-like portion included in said decorative element,  
12 said puff-like portion being flexible and having a  
13 substantially filled central region;

14 a system for positioning said puff-like portion distally  
15 in relation to said hollow member; and

16 a seal adapted to obscure said aperture and to  
17 substantially contain the objects in said elongated hollow  
18 member.

19 38. The cosmetic container according to claim 37, wherein said  
20 puff-like portion comprises a cosmetic applicator.

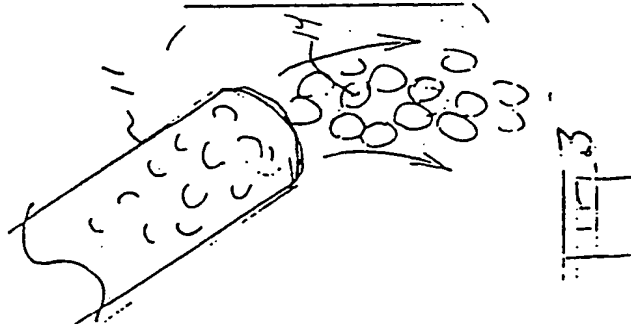
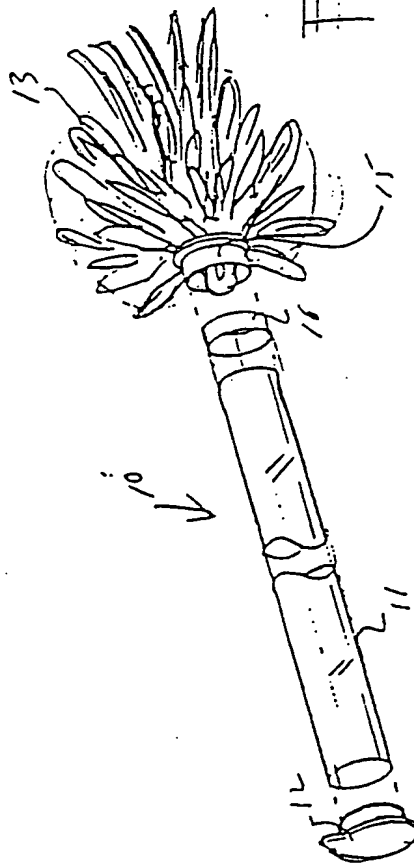
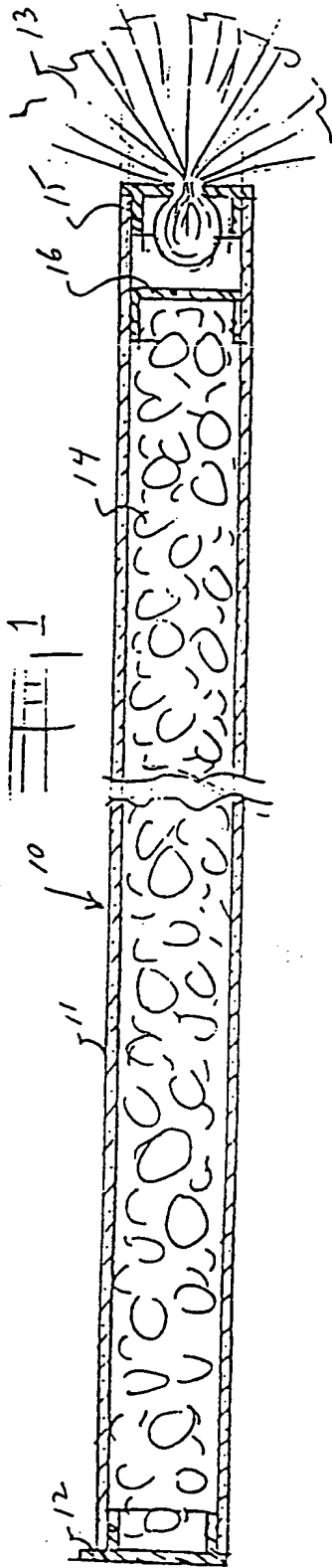
21 39. The cosmetic container according to claim 37, further  
22 comprising a structure for supporting said cosmetic container.

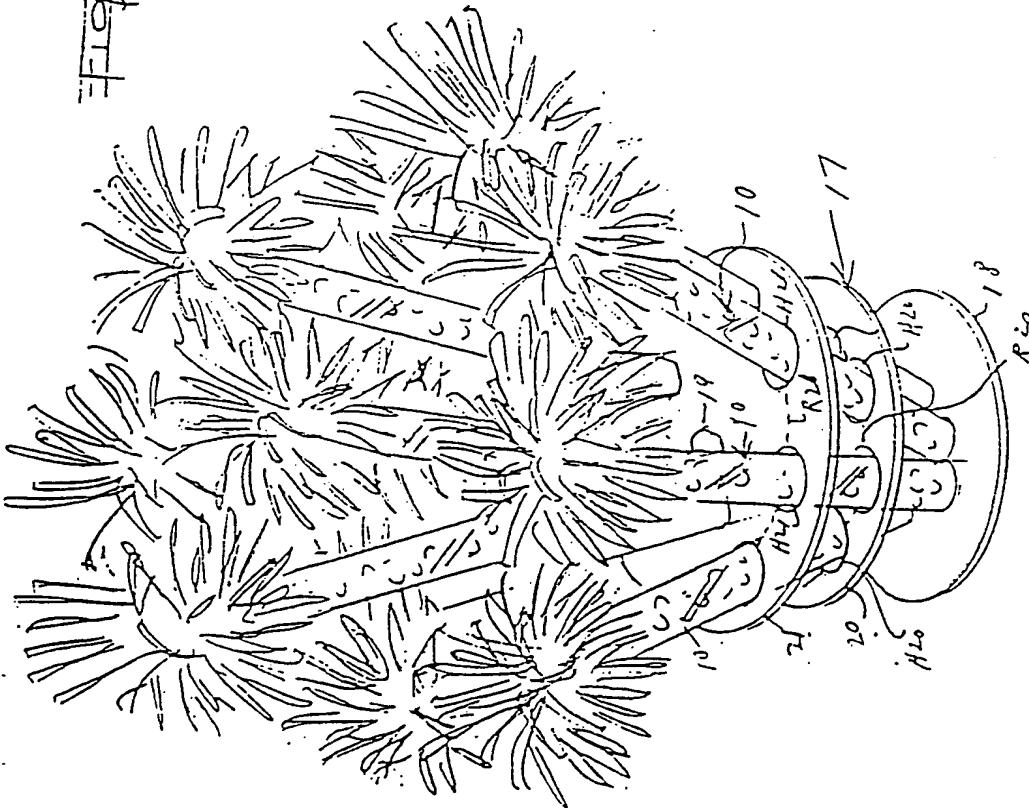
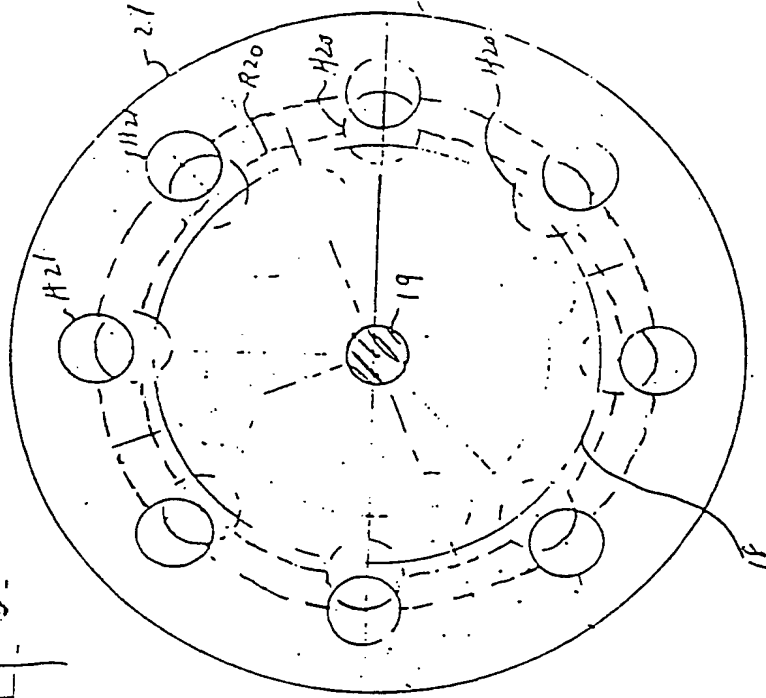
## STATEMENT UNDER ARTICLE 19

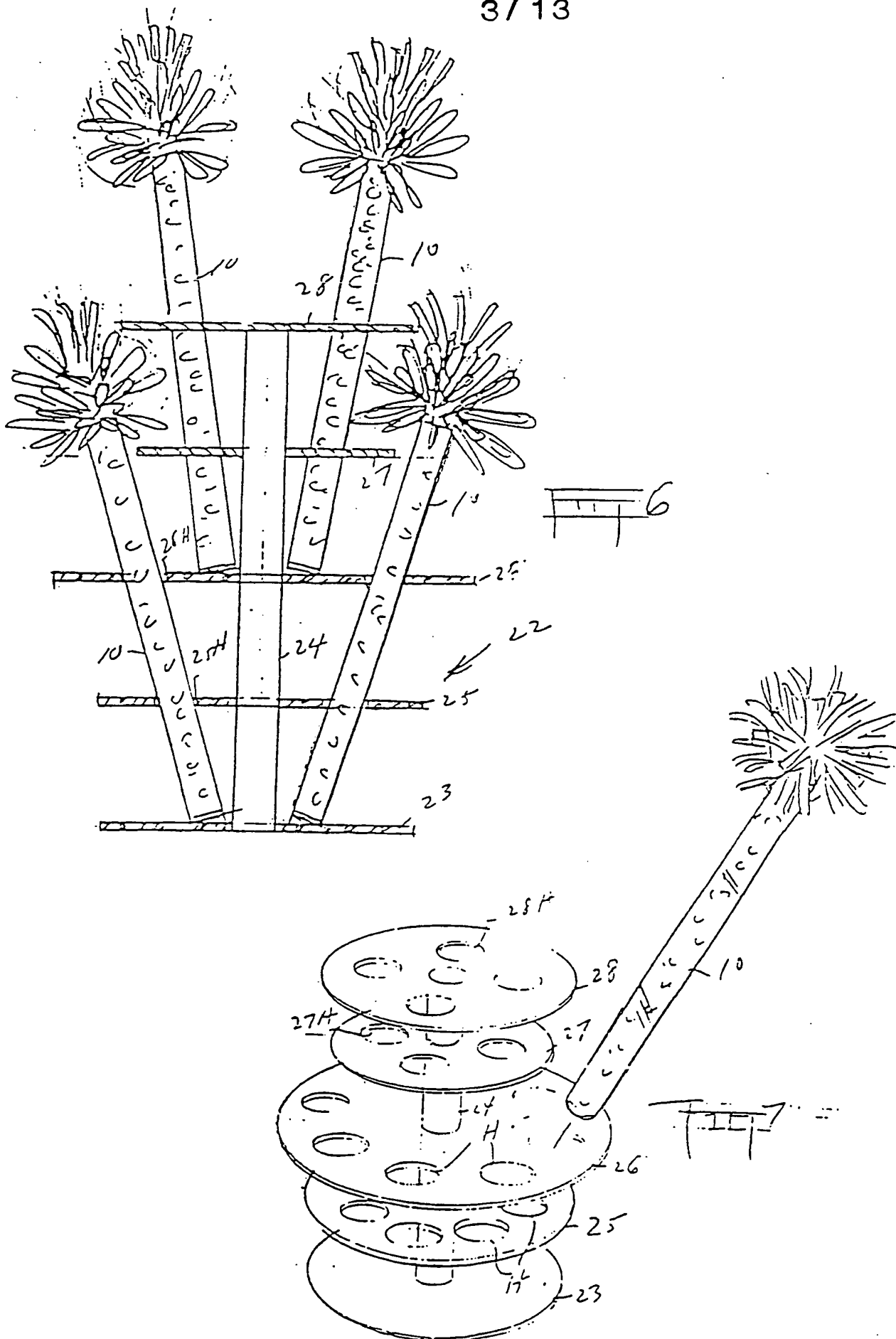
Applicants herewith submit replacement pages 41 through 45 amending the claims of the above-identified PCT application. These amendments are made in response to the International Search Report mailed November 26, 1993 by the ISA/US. Applicants have amended the independent claims 1, 11, 12, 23 and 37 to set forth that the pom-pom portion is positioned distal to the end of the stem. Applicants have further amended claims 11, 12, 23 and 37 to provide that the hollow is accessed through an openable seal.

The claims have also been reorganized to follow a pattern of dependence and amended to correct typographical, grammatical errors and to provide antecedent basis for claim elements.

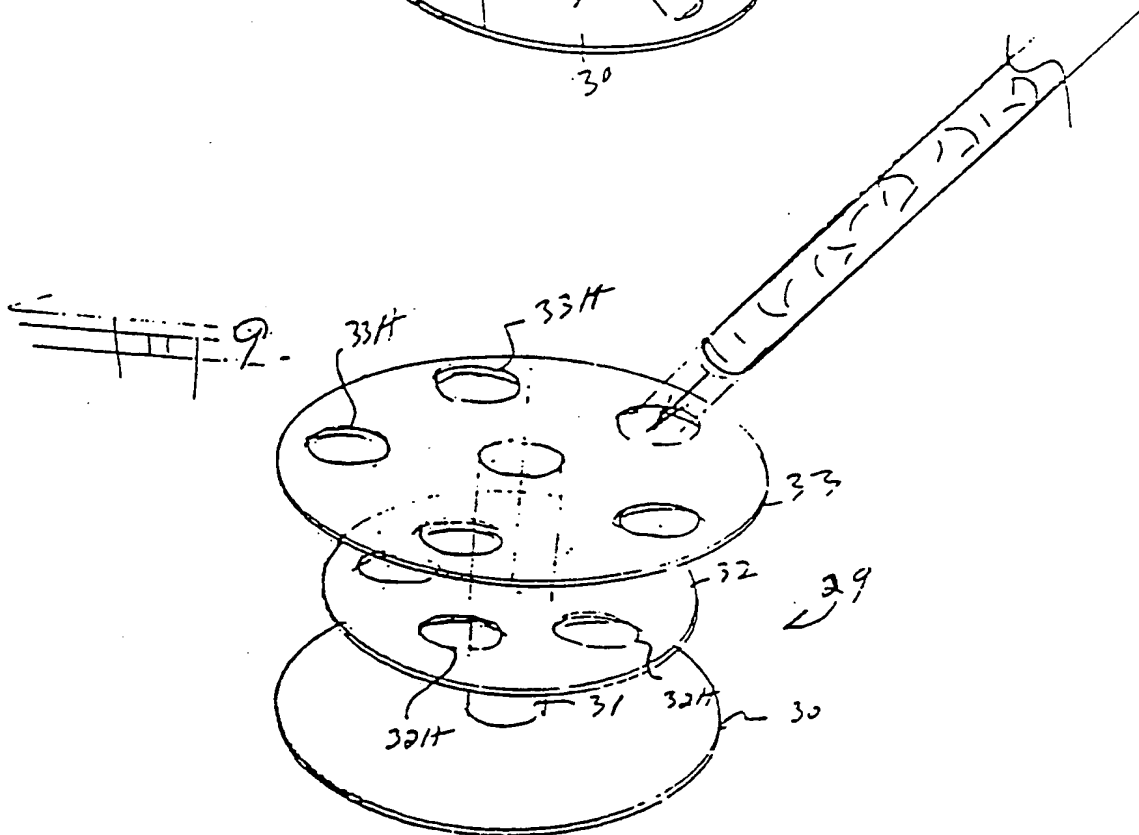
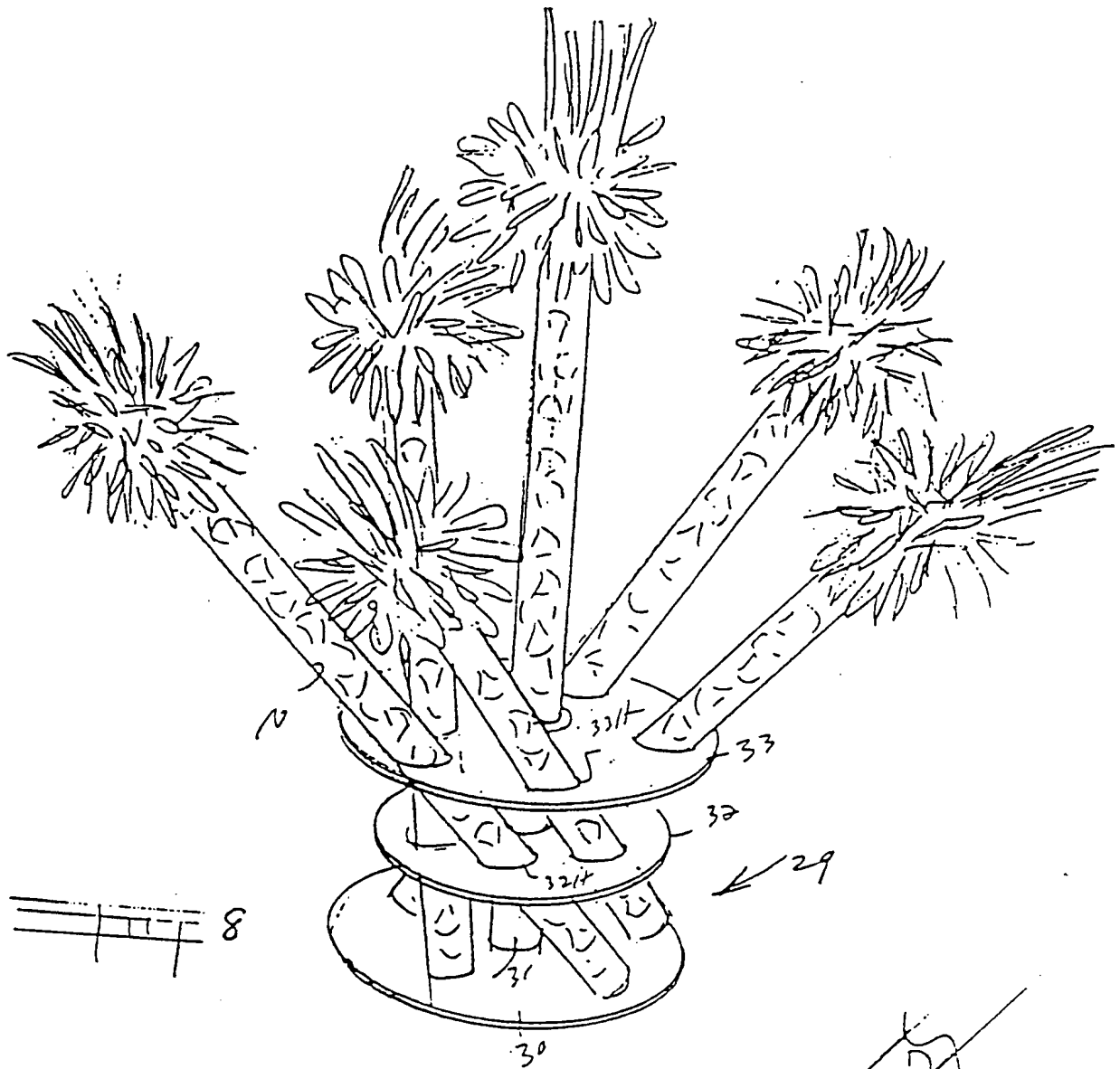
It is believed that the International Search Report provides basis for believing that the presently submitted claims, including broadening amendments, are patentable.

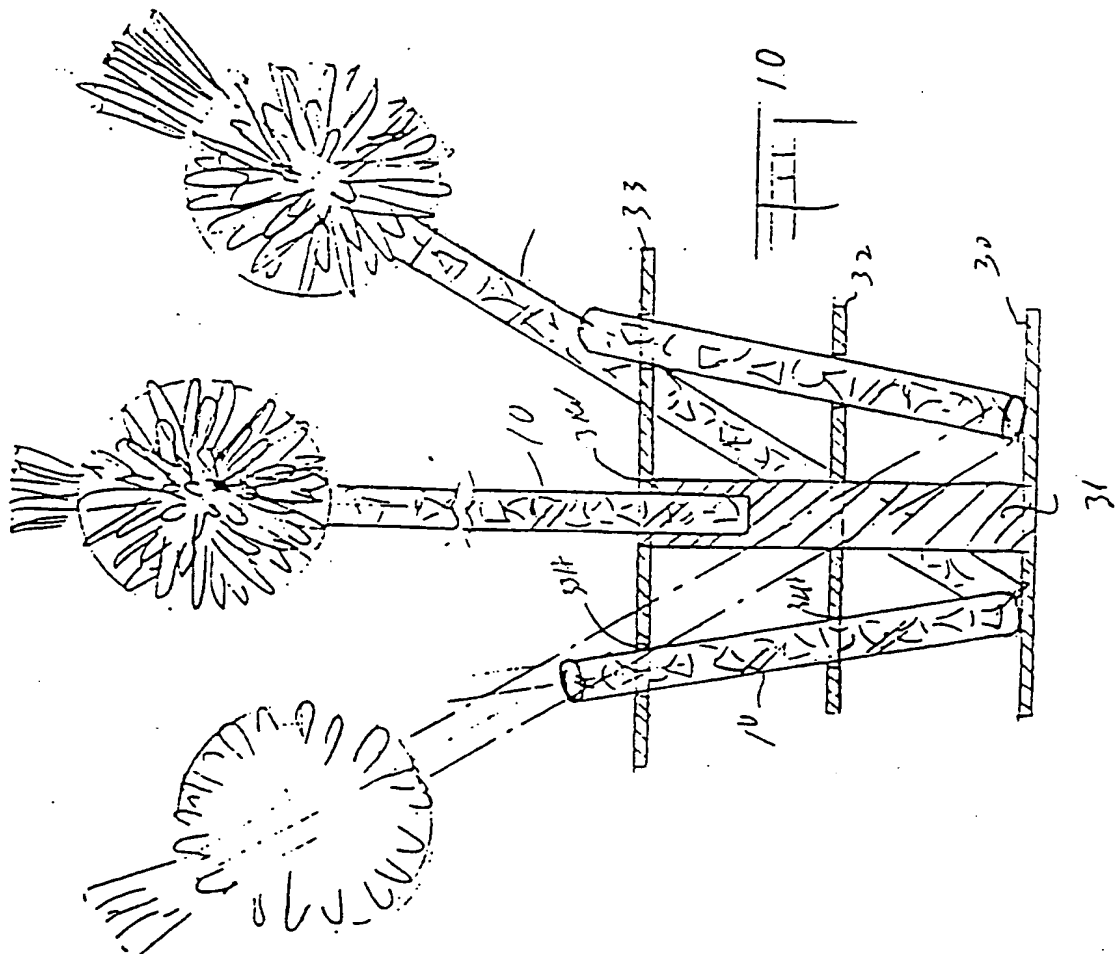












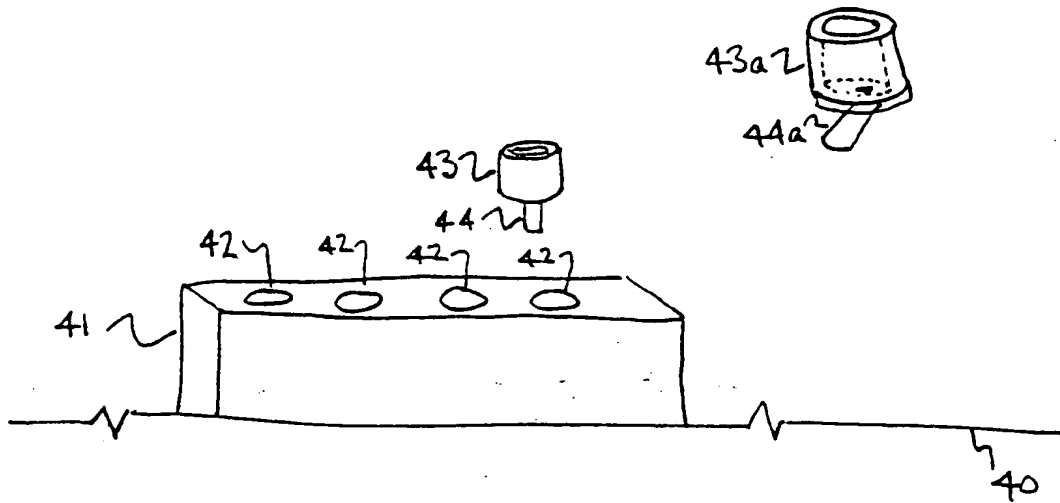


FIG. 12

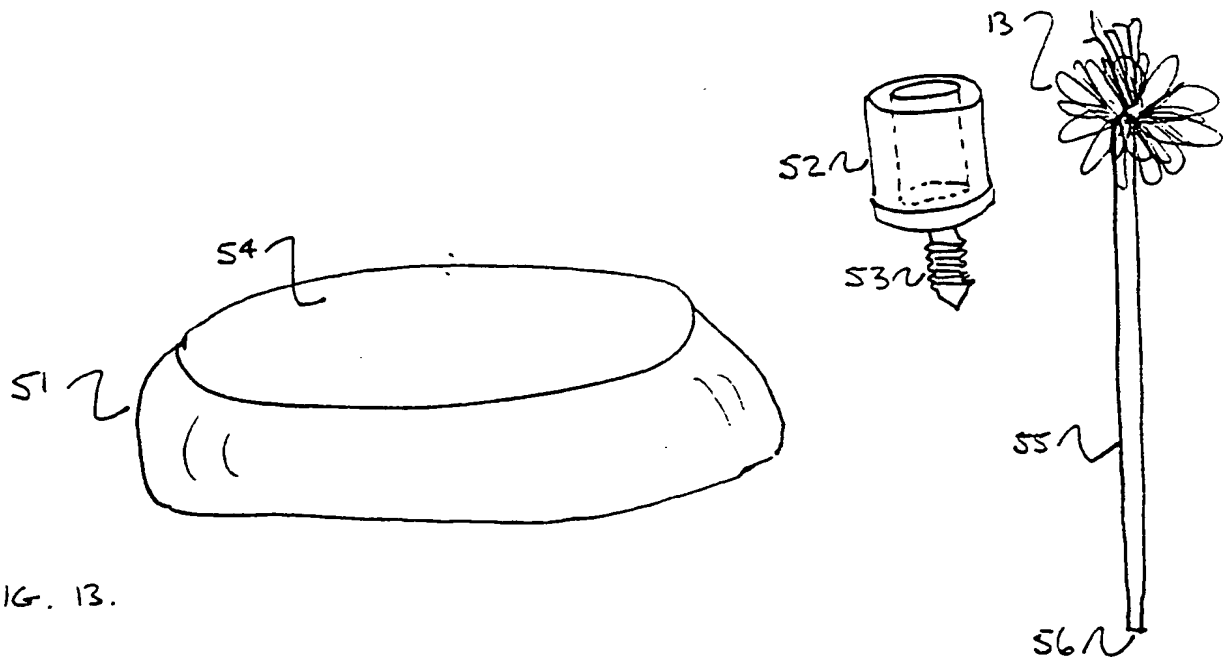


FIG. 13.

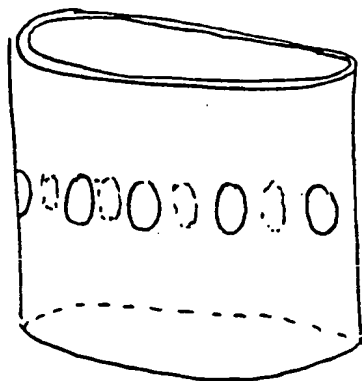


FIG. 14

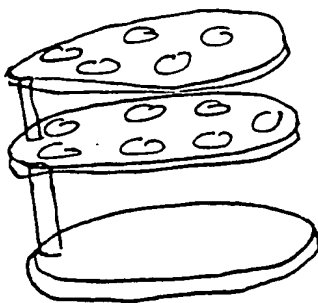
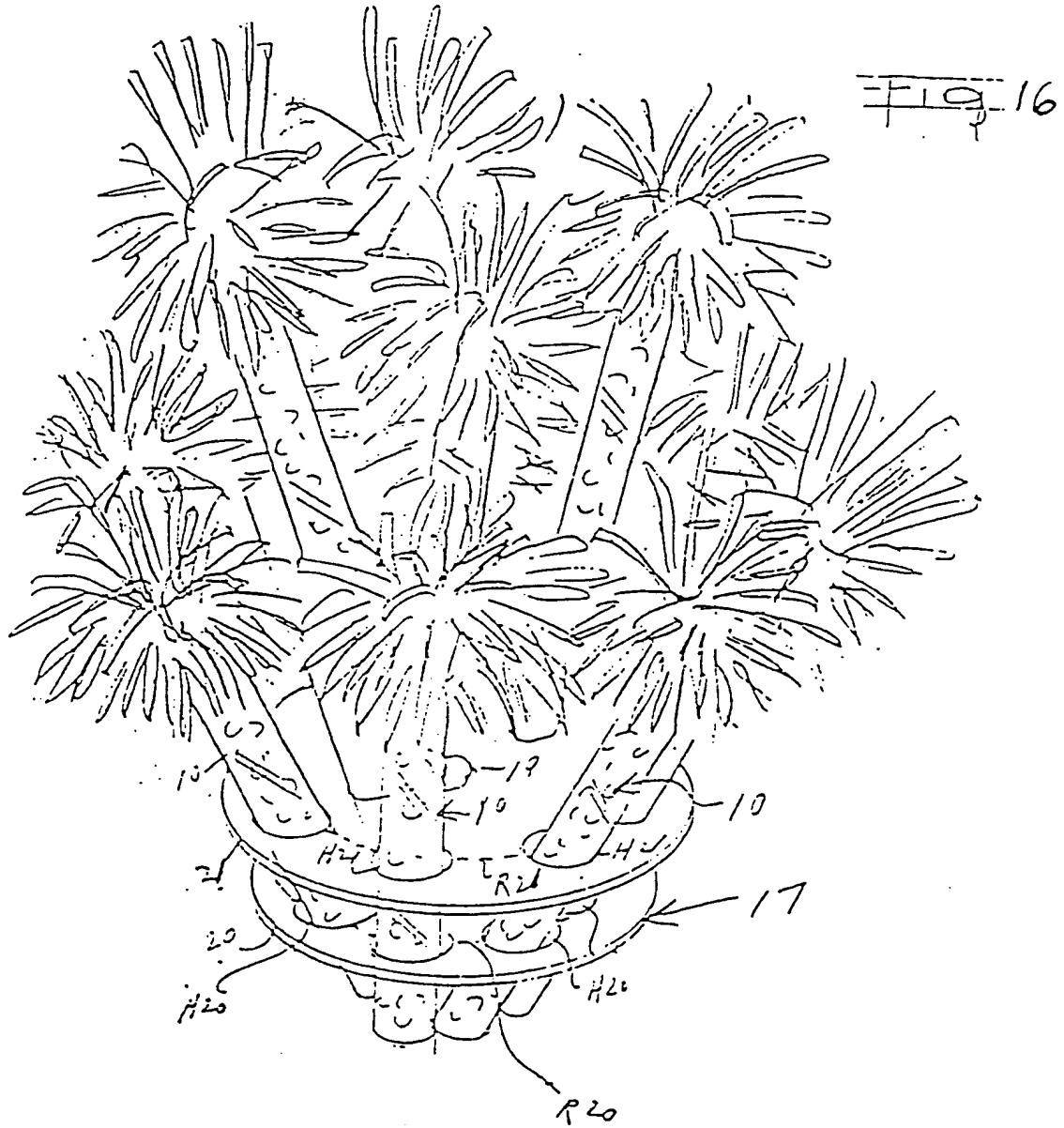


FIG. 15

40V



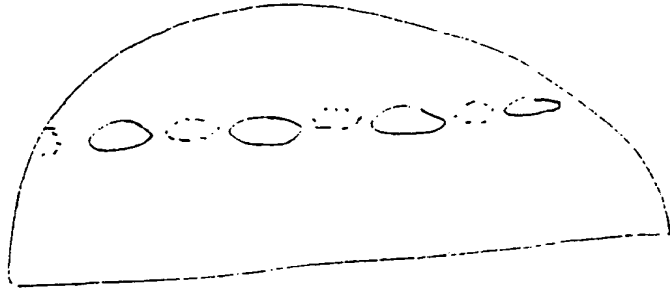


FIG. 17

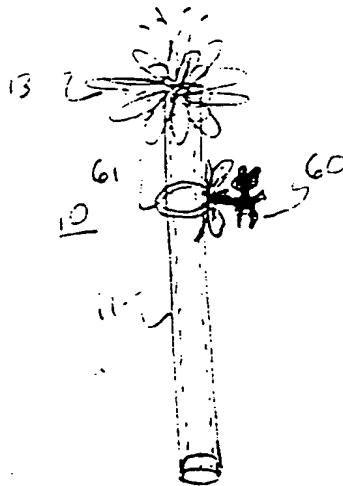


FIG. 18

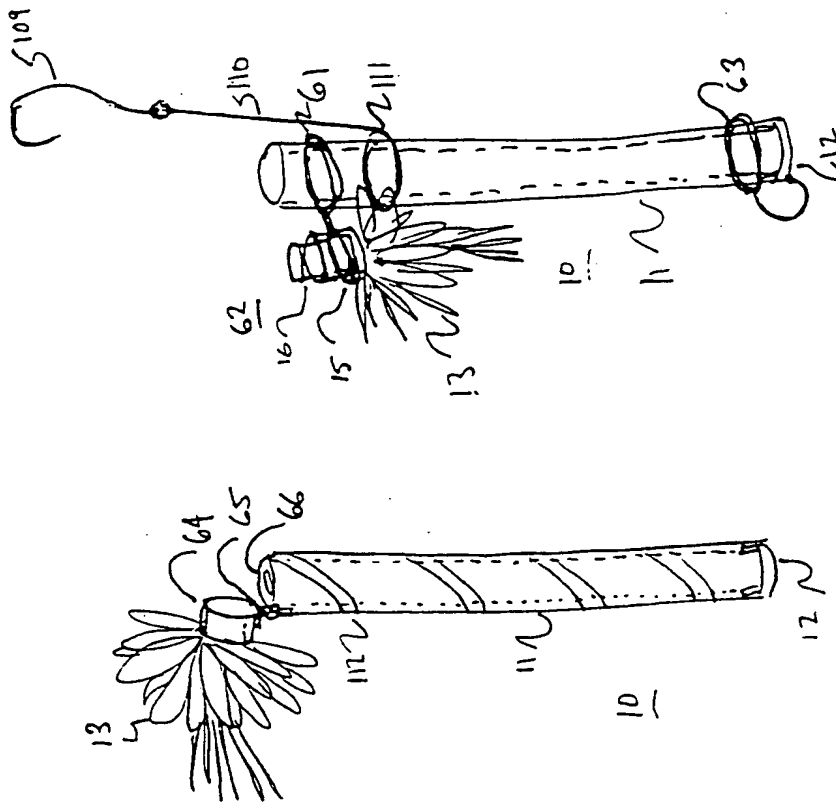


FIG. 19

FIG. 20

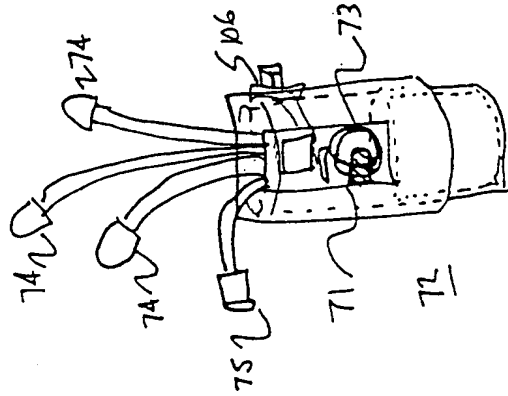
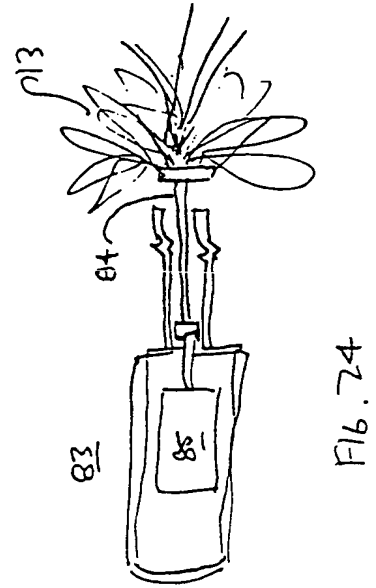
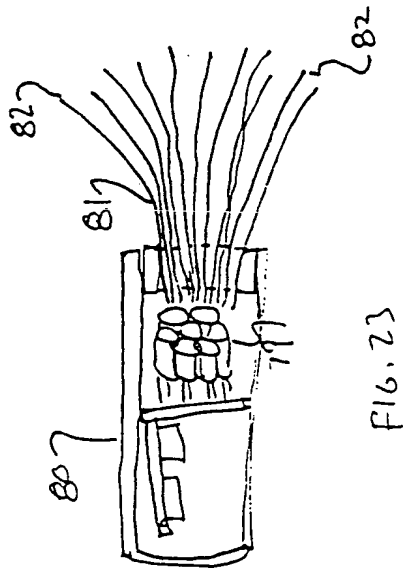
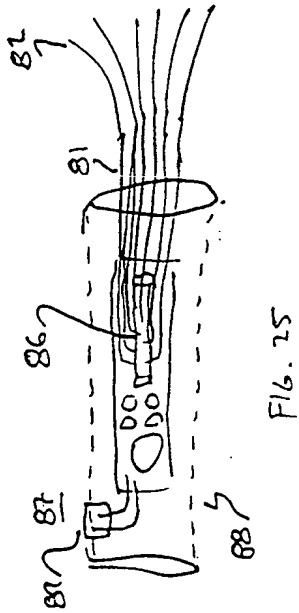
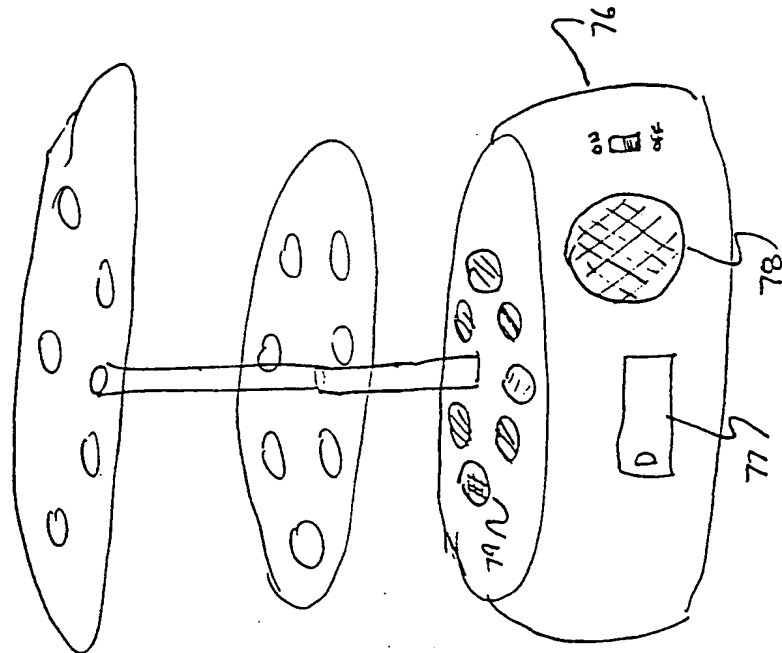
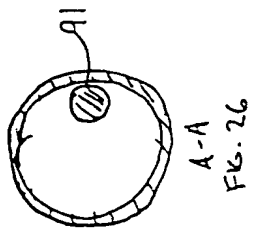
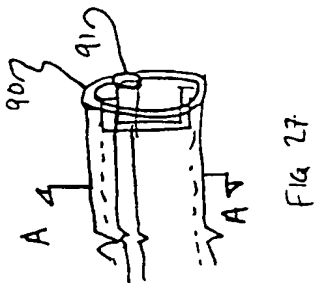


FIG. 21





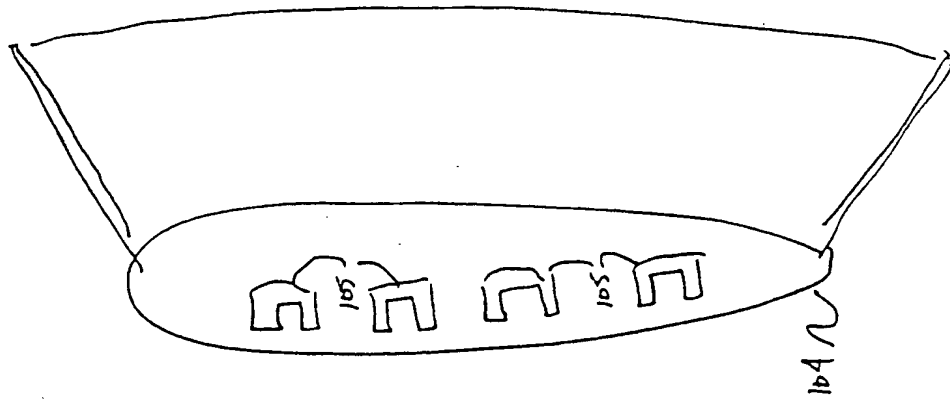


FIG. 30

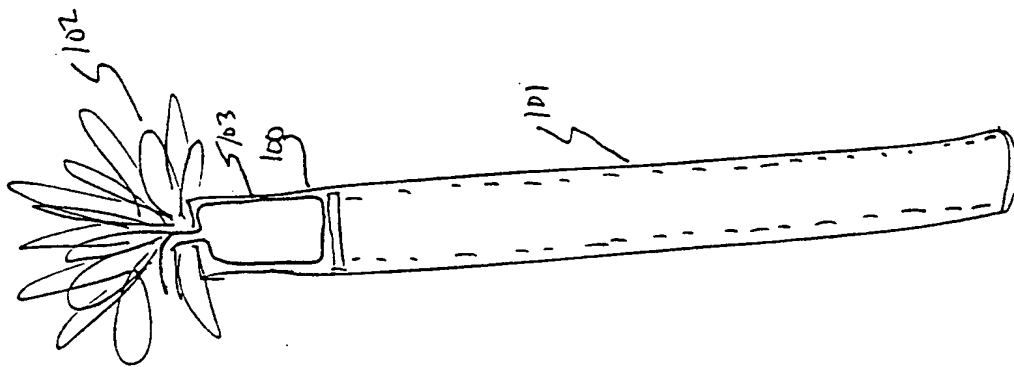


FIG. 29

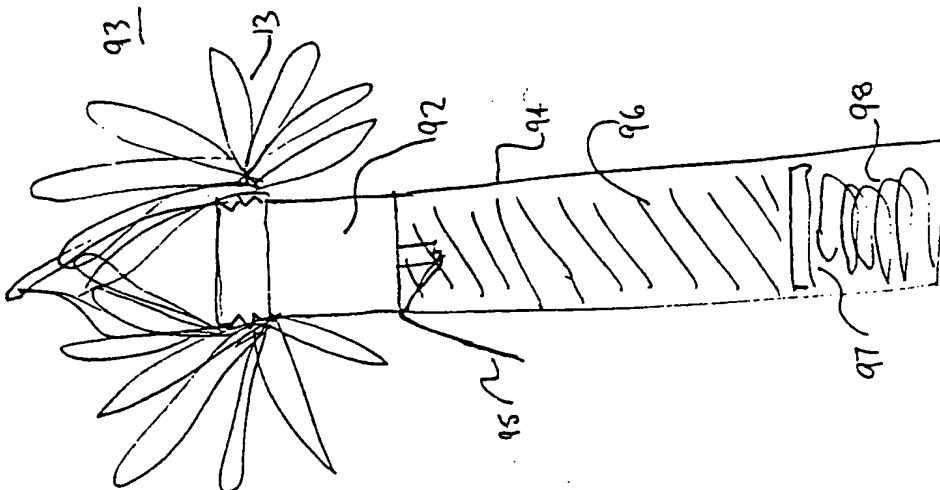


FIG. 28

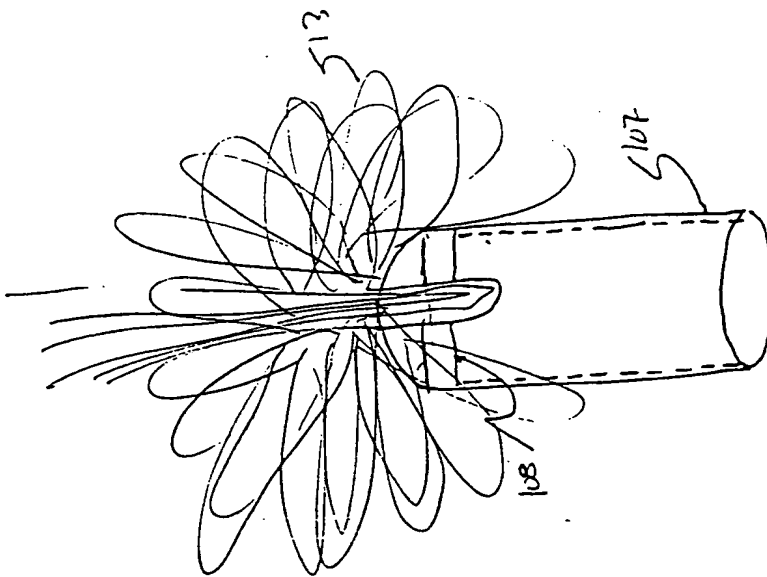


FIG. 31

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US93/07411**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(5) :DO4D 7/06

US CL :428/4

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 428/4, 23, 24; 47/41.12, 41.13, 41.14; 211/13.

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US, A, 4,461,118 (FERTIG) 24 JULY 1984, see Abstract and Fig. 1.	1-40
A	US, A, 3,768,202 (WHEELLOCK) 30 OCTOBER 1973, see Abstract.	1-40
A	US, A, 2,686,989 (DILLON et al.) 24 AUGUST 1954, see Figure 6.	1-40
A	US, A, 1,468,743 (PORTER) 25 SEPTEMBER 1923, see Figure 1.	1-40



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	* T	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
* A		document defining the general state of the art which is not considered to be part of particular relevance
* E		earlier document published on or after the international filing date
* L		document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
* O		document referring to an oral disclosure, use, exhibition or other means
* P		document published prior to the international filing date but later than the priority date claimed
	* X	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
	* Y	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
	* &	document member of the same patent family

Date of the actual completion of the international search

13 OCTOBER 1993

Date of mailing of the international search report

26 NOV 1993

Name and mailing address of the ISA/US  
Commissioner of Patents and Trademarks  
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